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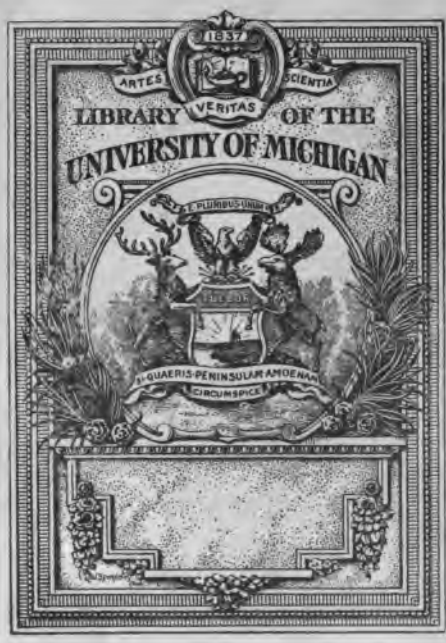
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THE

WESTERN JOURNAL

OF

MEDICINE AND SURGERY:

EDITED BY

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THE

WESTERN JOURNAL

OF

MEDICINE AND SURGERY.

JANUARY, 1847.

ART. I.—*Notes on Medical Matters in Paris.* By DAVID W. YANDELL, M.D., of Louisville, Ky.

After a sojourn of several weeks in the emporium of medical science I do not find myself in possession of a sufficient amount of professional matter to form a communication for the Journal such as I had hoped to make; but having come under a promise to furnish one for each number, the following is submitted, such as it is. I begin with a report of a clinical lecture on *Orchitis*, by Professor Velpeau, at the Charity Hospital.

Of the twenty-four examples of orchitis which you have seen in the hospital this year, said M. V., eighteen commenced in the urethra; the origin of the six others has remained doubtful. It is generally admitted that acute orchitis comprises two distinct varieties, the first of which has its origin in a lesion of the urethra; the second is produced by external vi-

olence. There is in our opinion a third class intermediate between the two others, if we may use the expression, which is not so generally recognized among practitioners. This variety arises neither from a lesion of the urethra, nor from any external violence, but it is caused, we believe, and the patients themselves sustain the opinion, by a violent effort or strain.

It is generally the case when a man laboring under orchitis presents himself to a surgeon, that he is immediately suspected of a blennorrhœa, and there is no credit given to his protestations that it has been produced by violent efforts. Nevertheless there is sometimes no trace of urethral discharge, nor any evidences of violence to the testicle; the epididymis is swollen, sensible and irregular; the tumefaction extends to the neighboring parts, and the patient cannot be made to confess any other cause than a violent effort.

It is now some years since, in examining the internal ring and the tissues concerned in its formation, we observed, as Thompson has asserted, that the right muscles give off many aponeurotic fibres which are attached to the internal face of the crest of the ilium. Those fibres form the inferior half of the orifice, and as a consequence pass under the testicular cord, or, to express ourselves in another way, and perhaps more clearly, the cord rides upon the fibres.

Now, keeping the disposition of the parts in mind, suppose the muscles to be in a state of contraction, those fibres must necessarily endeavor to straighten themselves, and if the effort is either considerable or long kept up, the cord must be compressed, and from this compression orchitis may ensue. Is it not highly probable then, that the urethra being in a state of irritation may predispose to orchitis; and a violent effort from the mechanism just pointed out produce it, in some cases at least?

Thus you will readily perceive that a man having a blennorrhœa is more disposed to contract orchitis than one whose urethra is in a state of health; but yet even in the absence of *ardor urinæ*, orchitis may occur under the influence of a violent muscular exertion. Formerly there was associated

with swelling of the epididymis and testicle the idea of a metastasis; it is still the opinion of some, that the inflammation spreads from the urethra to the testicle suddenly and without any continuity of tissue.

This theory is overthrown by watching the moment that orchitis most generally makes its appearance. If it were by metastasis that the inflammation invaded the testicle, it would most naturally occur when the urethral inflammation was highest. Every one knows that precisely the contrary is the case; that orchitis is observed when the blennorrhœa is on the decline, and the patient nearly recovered. Inflammation of the testicle is very rare in the beginning of the disease.

Between the two classes of orchitis of which we have spoken there are yet other differences. The orchitis produced by external violence may terminate in various ways, but there has been observed in them a strong tendency to bring about suppuration, whilst blennorrhagial orchitis seldom terminates in that way. Other things being equal, traumatic orchitis in general is more grave than urethral orchitis, for it is evident that in producing suppuration the chances are that it will destroy the testicle. Blennorrhagic orchitis, on the contrary, only leaves behind it a little induration of the epididymis, and its functions are left unimpaired. Orchitis arising from external violence may leave behind it indurations and lumps of matter, which after a time may give rise to different kinds of tumors.

The inflammation of the testicle arising from a violent effort is either cured very speedily, or it requires more time to be dispersed than either of the others.

As for urethral orchitis it must not be thought that the sole cause of its origin is to be found in the existence of a blennorrhœa. It may be a consequence of divers injuries in the canal itself, stone, disease of the prostate and tubercles. Those cases of orchitis which arise from the last of these causes most generally end in tubercular disorganization of the testicle. The ordinary orchitis cannot be considered as a very grave affection, lasting only fifteen or twenty days under most circumstances.

The various methods of treatment adopted by surgeons are antiphlogistics, compression, and punctures made by the lancet. The first of these means may be employed, and if leeches are applied, I should advise them to be placed along the course of the cord rather than on the testicle itself. Compression has been revived by M. Friki; but it is a difficult method and is not free from danger. The testicle may be compressed too forcibly by the bandages, and unpleasant consequences ensue. The punctures by means of a lancet we are in the habit of using, and they are both inoffensive and efficient. If there be any collection of fluid it is evacuated, and you need have no fear about the little operation which is less difficult and dangeroas than that of bleeding; for what can there be to apprehend? There is no vessel in this region capable of furnishing a dangerous or embarrassing hemorrhage. Do you fear that you may reach the testicle? That is scarcely probable; and should it occur, it cannot produce the great inconveniences which were at one time apprehended. Under this treatment the ordinary sojourn of the patients in the hospital is seven days and a half.

We will proceed to examine the two methods of cauterization and scarification, and by comparing them with that of dilatation, we shall gain a clear idea of the relative advantages of these three methods.

We would say that cauterization does not succeed by itself; it must be assisted by dilatation. It is clear that if it act upon the narrowed portion of the canal by a destruction of substance it would be more dangerous than useful; for the retraction which would follow the healing of the wound would leave the passage still more restricted. We consider that there is a great error committed in supposing that nitrate of silver, introduced into the urethra, will destroy the tissues with which it is brought for so short a time in contact, for if you will examine the effect which follows on the skin from a similar cauterization, you will find that it is most superficial, that no eschar results from the touch, and we have every reason to believe that similar results occur in cauterization of the

urethra. Therefore, by cauterization, thus employed, there is obtained, at best, but a mere modification of tissue, as is observed in some diseases of the skin, in certain cases of lichen, eczena, &c.; and if, concurrently with cauterization, dilatation were not employed, what power could it be supposed to exert upon the stricture? Here then, you see, is the reason why we employ only dilatation. If you have actually cauterized the urethra, you have performed a bad operation, because it is done at an expence of tissue; this is destroyed, and there will only follow a more decided stricture. If, on the other hand, only a slight modification of tissue is obtained, you have done no further good than dilatation would have effected had it been employed alone. Why, then, not trust to dilatation by itself? And, furthermore, we have not sufficiently thought, perhaps, that with bougies in the urethra a compression is produced which, of itself, acts upon the inflammation of the tissues. Among the other means employed in strictures, we may mention abrupt dilatation and scarifications. Abrupt dilatation is already nearly abandoned; it is understood to consist in passing a very large sound through a very small stricture. This is a most curious idea; nevertheless there is at the bottom of seemingly the merest paradoxes something which is true; and when such propositions are announced by men of such talent as M. Mayor, it cannot be doubted that their authors have witnessed some cases to which the method is applicable; these cases, we suspect, are those in which you detect small valvular openings. It has been advised to dilate the urethra by an instrument which, penetrating at first in a reduced form, is capable after being introduced, of being enlarged. We cannot give our sanction to this method, though some surgeons have assured us that it is a good one. Scarifications or incisions have been, by turns, too much praised, and too much undervalued. In ordinary cases we do not believe that they possess any advantages over dilatation; but when the cicatrix is hard, as in ligneous strictures, (*coarctation ligneuses*,) this is a method which is sometimes employed. It is established, however, that in

thirty cases of stricture, you would not encounter more than three or four of this description. The partisans of scarification generalise the method, and believe it possesses advantages over other means; however, bear in mind that they associate with it dilatation. As for us, if we must sum up our opinion of the relative utility of each of the methods we have just spoken of, we should say, in the ordinary strictures from diffuse inflammation, and presenting a double cone, dilatation alone, or employed, if you wish, with cauterization by nitrate of silver, is the remedy; we reject caustic, potash, Vienna paste, &c.

In strictures which are very resisting, hard, woody, employ scarifications. In strictures consisting of thin bridles, and in valvular strictures, resort to the abrupt dilatation of M. Mayor. We look upon medicated bougies as entirely inefficient.

Such is an imperfect translation of a lecture of Professor Velpeau's, to which I listened with great interest, and which I hope will not be read without some satisfaction. I will conclude my present communication with a few items of medical and scientific news, which appear to me interesting.

M. Beneditti, an Italian physician, speaks very highly of the tannate of iron in chlorosis. He commences by administering nine grains, and increasing the dose gradually to thirty-six grains, in the twenty-four hours. In plethoric and very robust individuals he uses larger doses.

Dr. Guépratte has proposed a method for preparing the moxa which seems to possess some advantages over the ordinary processes. Instead of paper or carded cotton, he employs calico which has been freed from its starch. This he saturates with a solution of the sub acetate of lead, and dries and rolls it into cylinders of the requisite size. Upon the part where he designs applying the moxa he drops a very small quantity of a solution of gum Arabic, which assists to keep the moxa in its place. The moxa made in this way, he says, ignites readily and burns regularly, without odor,

smoke, or flame. The operation is more prompt, less difficult, and less painful than when the moxa of carded cotton is used.

For a number of years Dr. Gower has been in the habit of employing, with great success, topical applications of the infusion and alcoholic tincture of tobacco in prosopalgia, and he was not sure whether it acted as an excitant or sedative, until M. Chippendale discovered that the active principle of this vegetable was nicotine. Dr. G., of all the various preparations of nicotiana, is most partial to the extract. He has seen three cases of this obstinate neuralgia yield instantly and permanently to a single application of the aqueous solution of this extract. And its success when rubbed upon the diseased jaw was no less marked in a case of tooth-ache.

La Verrier, who has immortalized himself by the discovery of a new planet, is but thirty-one years of age. He was born in Lower Normandy, a province which, within the last century, has given to physical science, besides the young astronomer just mentioned, the following illustrious names: Rouelle, Vauquelin, Fresnel, Dumont, d'Urville, and Laplace. The Minister of Public Instruction has just addressed a letter to the Academy of Sciences concerning the discovery of La Verrier, in which he says: "I think it right to inform the Academy of Sciences that the King has, in consideration of the event which now interests the scientific world, named M. La Verrier officer of the royal order of the Legion of Honor. He had not arrived at his turn by time; but science has its services of exception and its actions of eclat as well as war. The labors of M. La Verrier are of the class which honor our age and our country."

You have heard, of course, of the fulminating cotton, first prepared by Professor Shönbein, of the University of Bâle, which is creating a great noise all over the world. The discoverer has pretty clearly shown, in his various experiments,

that the inflammability of this new explosive is greater than that of gunpowder; it has several times been placed upon gunpowder and exploded without igniting that substance. The combustion of the cotton creates no smoke, affords no appreciable odor, and leaves no residuum. Its immersion in water, provided it is afterwards carefully dried, does not in the slightest degree impair its explosive powers, and the cotton after it is prepared, retains its natural properties. Dr. Otto, of Brunswick, thus describes the process of preparing the cotton, which will be seen to be exceedingly simple. The cotton is to be steeped for half a minute in concentrated nitric acid, then taken out and immediately thrown into water, which is changed until all traces of the acid have disappeared. That which is in lumps or rolls must be carefully opened in order to free it more perfectly from the acid, after which it is thoroughly dried. The smallest quantity of the cotton thus prepared, placed upon an anvil and struck with a hammer, produces an explosion like the fulminating silver. When used in fire arms, it is made into a small roll and wadded down as is practised with gunpowder. Time will fix the value of this article as a substitute for powder, but if it is kindled with such facility by the blow of a hammer, will it not increase very seriously the danger of handling guns?

The percussion of the ramrod driven down with more than the gentlest force, would probably ignite the cotton to the great hazard of the sportsman. And, again, when the gun became heated by repeated discharges, the ignition of the material could hardly be avoided. For these reasons, I should doubt whether the explosive cotton can ever come into general use as a substitute for gunpowder.

M. Sanson, one of the *savans* of this great metropolis, has lately addressed to his government a long letter, in which he recommends the King to prohibit the importation of all *venomous reptiles* into France, except for the *Jardin des Plantes.* He draws a frightful picture of the disasters which might flow from the escape of a single female rattlesnake big with

young. Her eggs, he fancies, would all hatch, and the little snakes all grow to be big ones, and in their turn go on producing new generations of snakes until France would be overrun with these formidable reptiles. Several of the papers ridicule the suggestion as very absurd. If a female snake should escape, say they, it would perish from the cold of the first winter; or if she should survive, the heat of the summer would not be sufficient to hatch her eggs. But are they sure that the rattlesnake lays eggs? I am sure it is stated in some works on herpetology that the venomous snakes bring forth their young alive, and not in the shape of eggs. Nevertheless, the fears of M. Sanson may well excite the merriment of his countrymen.

ART. II.—*A Case of Uterine Hydatids.* By FRANCIS H. GORDON, of Clinton College, Tennessee.

Mrs. A. G., æt. fifty-one, has had ten children, the youngest being over six years old. During the spring of 1845 her catemania became irregular, and generally persisted only about two days. The abdomen soon began to enlarge, and her friends thought she was again pregnant; but each supposed menstrual period caused temporary diminution of the abdomen. About the 25th December the discharge ceased, and did not return till 21st March, 1846. During this interval the abdomen enlarged rapidly, and by the last named date was as large as at the full term of uterogestation. Now, the discharge, which appeared to be serum, sometimes slightly tinged with blood, showed itself, and continued to return every two or three days, but in so moderate a quantity as not materially to affect the patient's strength or the size of the abdomen. About the 20th of April, it became profuse, consisting largely of blood, and caused speedy prostration. The recumbent posture and a liberal use of alum were the means

resorted to by the family; and the woman soon recovered so as to be up. After this, the discharge, which still returned every few days, assumed the appearance of a mixture of pus, blood, and serum. The woman's health gradually declined. Feet generally cold; brain and nervous system, liver, stomach and bowels, all suffered.

June 15, 1846. I was called to see her in the night, and found her with strong labor pains, the fundus of the uterus being about an inch above the umbilicus; the whole organ was hard and quite sore. The woman had daily had smart pains for more than a week, attended with the expulsion of lumps, which I supposed to be coagula. With the view of suspending or moderating the uterine action till the organ could be got into a safer condition for expelling its contents, I immediately gave a grain of acetate of morphia, and directed a warm poultice to be laid over the whole abdomen. These means produced partial ease for about five hours, when the paroxysms returned with violence, and in about one hour expelled a mass of *hydatids* amounting to nearly a chamber pot full, followed by profuse hemorrhage and dangerous prostration. The uterus was grasped at the fundus so as to cause reduction. I then gave four grains of acetate of lead. The hemorrhage moderated, and the strength of the patient rallied in three hours, and with the reaction the pains returned. Fearing the result of another scene so perilous as the one lately witnessed, I gave a grain and a half of the acetate of morphia, which induced several hours sleep. At 4 o'clock, P. M., on the 16th, a mass of hydatids was expelled, weighing several ounces, which was shown to the patient at her request; she remarked that it was just such as had been discharged almost daily for more than a week, some of them being less and others larger.

A broad bandage was now firmly and smoothly applied; small and oft repeated doses of sulph. and carb. magnesia were directed as an aperient; patient to be kept cool, quiet and recumbent; poultices over the abdomen to be resorted to often enough to keep down all signs of inflammation; daily

injections of warm water into the vagina, and diet light but nutricious. From this time to the 24th, parcels of hydatids were daily expelled, but the pains were moderate and the hemorrhage inconsiderable. Febrile symptoms underwent gradual abatement, and improvement was progressive. At this time, 24th October, the woman's health appears to be perfect.

I have carefully preserved the mass of hydatids expelled during my first visit; it being a most interesting specimen. I suppose the number of cysts it contains to be more than a thousand, varying from the size of a millet seed up to that of a plum. Their matrix, or medium of attachment to the uterus, consists in part of coagulating lymph infiltrated with blood; but a larger portion much resembles the maternal placenta. The necks of the primary, or parent cysts, penetrate deeply into this substance; secondary hydatids are attached to the sides and summits of these; tertiary ones to the secondary, and so on, in some instances to the sixth generation. Their most common shape is that of a Florence flask; but some are cylindrical and connected at their extremities by pedicles. They are of two colors, a large proportion being perfectly transparent, and the remainder, perhaps one-fifth, varying from a pale red up to the deep hue of a ripe cherry.

Could the contents of the uterine cavity have been viewed in its unbroken arrangement, these must have presented a curious and interesting picture. The whole internal surface was lined with what may be fitly termed a placental mould, for the nourishment of a most luxuriant vegetation. As if nature had been unmindful of her common laws, and disposed to frolic upon a human constitution, in imitating some splendid grotto, the whole surface of the cavity was studded, in rich profusion, with fruits of all grades, from those which had just dropped their petals, up to those of full growth and maturity; between many of which were insinuated filamentous folds resembling leaflets. But not contented with the most dense production the surface could contain, racemes were made to spring from the sides and summits of the primary

fruits, and from these other clusters were pendant, and so on, multiplying in geometrical progression, until the whole cavern was decorated with clusters of various sizes, colors, and grades of maturity; and, to render the process complete, the whole was watered by an intermitting fountain, ever gentle and limpid, save when reddened by the wine of ripe fruits, which, anon, swelled it to a desolating torrent.

October, 1846.

ART. III.—*Excision of the Inferior Maxillary bone for Osteo-Sarcoma.* By WILLIAM H. DEADERICK, M. D., of Athens, Tennessee.

The operation of which I propose to give a very brief account, was performed nearly thirty-seven years ago, and at that period, so far as I am informed, was unknown in surgery. Since that time it has been repeatedly executed, and the claim of having originated it has been set up by a foreign surgeon. By comparison of dates it will be seen that my operation preceded that of M. Dupuytren by two years.

On the 6th of February, 1810, Jesse Lay, a lad of about fourteen years of age, was brought to me on account of an excrescence which gradually arose from his gums, and which, in consequence of long neglect, completely enveloped the lower maxillary bone of the left side. It filled the inside of his mouth to such an extent as greatly to interfere with respiration and deglutition. Externally, the tumor exhibited the appearance of a wen of considerable size, and as it was daily augmenting it was evident that nothing short of its entire removal, with the portion of the bone it occupied, could save the life of the patient. Accordingly an incision was commenced just below the left ear, and continued along the course of the bone to the centre of the chin; a second one was made at right angles to the first. The integuments were then dissected from the tumor, and the bone sawed off at the angle of

the jaw, and half an inch from the centre of the chin nearest the angle divided. The integuments were united in the usual manner, and the boy had a speedy and perfect recovery. The youth, at the time of the operation, although fourteen years of age, was not larger than boys usually are at ten or eleven; but immediately afterwards he commenced growing, and attained the ordinary stature of manhood. A well trained whisker hides, in a great measure, the scar left by the incision, and at a short distance the effects of the operation would not be observed.

Athens, Nov. 1st, 1846.

Note. Dupuytren is the generally accredited author of the operation above described. This distinguished surgeon removed a portion of the lower jaw for a cancerous affection of the gums in 1812. The operation of Dr. Deaderick, it will be seen, was performed two years prior to that time. Dupuytren's case was reported to the Faculty of Medicine at Paris, by Lisfranc, in 1813. The report of Lisfranc is republished in the *Dictionnaire des Sciences Medicales*, vol. xxix. p. 430. Dr. Deaderick did not give to the public any account of his operation before 1823, when he described it in the American Medical Recorder.

Dr. Mott, in a letter to Mr. Liston, has preferred a claim to priority in this operation. He says, "I claim for myself and my country *originality* in the operation of exsection of the lower jaw at the temporo-maxillary articulation, and in different proportions for osteo-sarcoma. I avow and declare solemnly that before my first exsection of the lower jaw for osteo-sarcoma, I never saw, read or heard of anything of the kind ever having been done in any country." He adds, "We repeat and aver, that the exsection of the lower jaw of even a fourth part, much less a half or two-thirds of it, for any form of sarcoma involving the whole texture of the bone, has never in our opinion been performed by any surgeon, past or present, until by myself at the time above stated."

The operation of Dupuytren is admitted not to have been for

osteo-sarcoma, but for a cancerous sore situated over the angle of the jaw. Ribes, in the *Dict. des Sci. Med.*, referring to this operation, has the following words: "These facts lead to the hope that fungus, or osteo-sarcoma of the lower jaw, a disease so formidable that it has in many cases been vainly attacked with the iron and fire, will henceforward, since the operation of M. Dupuytren be removed by amputation of a portion more or less considerable of the lower jaw, without the danger of any accident, and, if the disease be local, with a certainty of success."

Many years before these predictions were uttered in Paris, the operation had been successfully performed by a young surgeon in the backwoods of Tennessee.

In a lecture delivered by Dr. Houston, of Dublin, in 1844, and published the same year in the London Lancet, the honor of having originated this operation is claimed for Mr. Cusack, who has performed it twelve times. The lecturer says, "The grand exploit of amputating the lower jaw, even from its articulations, the boldness of which has been only equalled by its success, has now become a standard operation in surgery. Persons afflicted with the distressing and loathsome disease for which this operation is undertaken, were formerly allowed to die, without any idea being entertained of the possibility of saving them; but now that a great mind, relying on a sound knowledge of the capabilities of the human frame, has set the example of extirpating the diseased mass *in toto*, many surgeons have fearlessly followed in the path thus laid open for them, and have derived honor from the success which crowned the enterprise. The success of this operation, both as regards immunity from danger, rapidity of convalescence, and the useful quality of masticatory apparatus which follows, is almost incredible."

Upon this passage Dr. Townsend, in his edition of Velpeau's Surgery, comments thus: "To whomsoever, therefore, the honor of this great triumph belongs, *mutatis mutandis*, the eulogium ought to apply equally well in Dr. Huston's conceptions, who, doubtless, would not desire to diminish one iota of

it, because a name of different orthography from that of the justly respected Mr. Cusack, should happen to be found by a species of anaplastic substitution, to dovetail more completely than his with the historic facts in the case. We say cheerfully with all our heart, *palmam qui meruit ferat!*"

Dr. Deaderick's is the name which seems "to dovetail" *most* "completely with the historic facts," and to him, therefore, must the palm be awarded. True, he operated but once, and his operation was not made known to the world for many years afterwards; but it was undertaken for what appears to have been osteo-scarcoma; it involved the excision of nearly one-half of the lower jaw bone, and was crowned with perfect success. Dr. Deaderick did not call the disease *osteo-sarcoma*, but, in his account of his operation published in the Medical Recorder, described it as "a cartilaginous tumor." In the brief notice of it given above he applied no name to the affection, and the title prefixed to his communication is ours. Every medical reader knows how vague is the term "osteo-sarcoma," and what a diversity of morbid growths are called by that name. From the description of the tumor in Dr. Deaderick's case we have no doubt it would be styled osteo-sarcomatous.

It appears, then, that Dr. Deaderick preceded Dupuytren in the operation of excising the lower jaw bone two years, and that he anticipated Dr. Mott by eleven years, although he neglected to publish an account of the operation until after Dr. M. had communicated the results of his to the world; consequently Dr. M. was unapprised of what had been done by his countryman. He may still claim "for his *country*," if he cannot for himself, "originality in the operation," for Cusack's operations were performed two or three years subsequently to Dr. Mott's first. The operation has been performed by Dr. M. seventeen times. In a note appended to his letter to Mr. Liston Dr. Deaderick's operation is referred to, and this brief, obscure notice is all the allusion to it that we have found in looking through the American edition of Velpeau's great work on surgery. We have deemed it but an act of

justice to a modest and worthy member of the profession to give these dates in connexion with the history of his case.

Y.

ART. IV.—*A Case of Inversion of the Uterus.* By E. HALLEY McCOY, M. D., of Harrisville, Ohio.

On the night of the 20th of last January I was summoned to visit Mrs. Carmon, æt 21, who had been delivered, two days previously, of her first child by a midwife. The patient was lying on her back, with feet drawn up in the bed; her respiration was diaphragmatic; skin hot and dry; pulse small, wiry, incompressible, and beating one hundred and fifteen in the minute; mouth dry; tongue covered with a dark brown fur. She had extreme abdominal tenderness; the lochia was suppressed, and she experienced continued bearing down pains. On making an examination *per vaginam*, I encountered a body which at first struck me as being the placenta, but on passing my finger upward around the tumor, I found the vagina reflected in the form of a ring around the pedicle of the tumor. I now became satisfied that I had an inverted womb to contend with. After explaining the case to the husband and friends, I introduced my hand in a conical form, indented the apex of the tumor, and gradually but perseveringly carried it up through the *os uteri*, entirely relieving the expulsive after pains. I ordered an infusion of chamomile flowers to be thrown into the vagina every two hours, together with fomentations of hops to the abdomen, and a powder containing grs. 5 pulv. antimonialis, gr. 2 calomel and gr. ½ opium; one to be taken every two hours. On my second visit, eighteen hours after reducing the inverted womb, I found a decided improvement in all the symptoms; the powders had acted freely on the bowels, bringing away copious, dark, bilious dejections; the abdominal tenderness was subsiding; the

lochia had returned; the pulse had fallen to ninety and was soft and full; the skin was relaxed and moist, and the secretion of milk was established. In short, the patient required but little subsequent treatment, taking little else but a few ounces of elixir vitriol as a tonic, and at this time is able to attend to her domestic duties.

April 10th, 1846.

ART. V.—*A Case of Periodical Neuralgia.* By JAMES L. TAYLOR, of Trenton, Ohio.

Mrs. P., aged 27 years, formerly a resident of a miasmatic district, was attacked, March 2d, 1846, with the most excruciating pains in the left side of her head. Her sufferings were so extremely agonizing as often to cause a temporary loss of reason and consciousness. The first paroxysm, however, was of but short duration. March 3d, at 9 o'clock, the pain returned with rather more than its former violence; and this morning I was summoned to see her. Upon inquiry I ascertained that the week previously she had been indisposed, caused in consequence, as her friends thought, of exposure and loss of sleep. The pain could be traced along the course of the temporo-facial nerve, and was decidedly periodical in its character, and of the quotidian type. She had previously been subject to neuralgia, though of a different nature, the pain having been principally confined to the lower extremities.

After the pain had subsided, transient flushes of heat passed over the face and body; skin intensely hot and dry, attended with thirst, dryness of the mouth, &c., the pulse being full and strong. A good deal of nausea, with occasional vomiting, was also an attendant. In a word, her case presented all the phenomena of a hot stage, such as belongs to intermittent fever, and this was followed by profuse sweating. I directed calomel, grs. xv, and ipecacuan, grs. v, to be given

immediately; they acted as an emetico-cathartic. ℞ sulph. quinine grs. xii, sulph. morphia, gr. i—m. ft. div. in pill iv. One to be taken every hour, commencing four hours before the time of the expected paroxysm.

On visiting my patient next morning, I was somewhat surprised at finding that the paroxysm had returned with as much violence as on the day previous. I was informed this morning, that my patient had been, for two years or more, in the habit of using opium, or some of its peparations, freely, for pains of a rheumatic character. As, under these circumstances, it was evident that the opium had, partially at least, lost its influence on her nervous system, I ordered ℞ sulph. quinine, grs. xiv, sulph. morphia, gr. 1¼, to be made into four pills, one to be taken every hour as before directed.

March 5th. The paroxysm again returned, though somewhat abated in violence and duration. In each successive paroxysm, as the pain passed off, the patient experienced a numbness in the part of the head affected, and felt incapable of anything like mental exertion. As the next hot stage came on, the pulse became excited, full, hard and tense, and I determined upon venesection. This was carried to as great an extent as the symptoms rendered expedient, and was followed by calomel, ipecacuan, and opium, in divided doses. Under this plan of treatment the paroxysms ceased to recur, and the health of the patient was soon re-established. She is now in perfect health.

July, 1846.

ART. VI.—*A Case of Concussion of the Brain followed by Mental Derangement and Paralysis, successfully treated by Sulphuric Ether.* By JOHN TRAVIS, M. D., of Melville, Tennessee.

M. P. æt 25 years, was thrown from a horse against a dwelling house with great force; he was apparently dead for half an hour. His head was bruised and the integuments lacerat.

ed. When he revived he was found to be deranged in mind, in which state he continued for six weeks, notwithstanding he had two medical attendants with him daily. On examination, it was ascertained that there was no fracture of the cranium. So soon as his reason returned, his arms to the elbow, and his legs to the knees, became paralysed; he could move neither, which proved that the nerves of motion had lost their power. The function of the nerves of sensation remained unimpaired. In this condition his health otherwise was good. His physicians gave him a variety of medicines, and applied various rubefacients, blisters, &c., for several weeks, but the patient remained in *statu quo.* I was now called upon; I prescribed different articles of the materia medica—all in common use, in fact, except strychnia. This I intended to use as a dernier resort; but learning that ardent spirits would in a slight degree excite the nerves of motion, I sent the patient sulphuric ether, and directed him to take a large tea-spoonful in cold water, three times a day. After using this medicine three days he could bear his weight on his feet; and in two weeks he could walk without any assistance, and is now in a manner well, having the use of his arms and legs.

I have thought it proper to make these facts known, as it is a mode of treatment that I believe has not hitherto been pursued, and one which has proved eminently successful in a case which was deemed hopeless by the patient and his friends.

November 12th, 1846.

REVIEWS.

ART. VII.—*Scrofula; its Nature, its Causes, its Prevalence, and the Principles of Treatment.* By BENJ. PHILLIPS, F.R.S. Assistant Surgeon to the Westminster Hospital. Illustrated with an engraved Plate. 8 vo. pp. 355. Philadelphia: Lea & Blanchard. 1846.

That Scrofula is but imperfectly understood, and that the success of the most popular modes of treatment pursued in the disease is far from being satisfactory, is abundantly evident from the eagerness with which the grossest empiricism professing to cure it is embraced, even in the most enlightened communities. The ignorant quack, with his vaunted specific, commands more attention, and often more confidence than the most learned and eminent members of the profession.

Any work, therefore, and especially one based, as that which stands at the head of this article professes to be, upon long and patient observation, comes before the profession with strong claims to its attention and favorable regard. The addition of a single new fact to our limited knowledge of this formidable disease, cannot be deemed a matter of trifling importance. The author of this volume has devoted much time to his subject, and his means of observation, as will be seen from an examination of his work, have indeed been extraordinary. But that the number of facts collected by him has been sufficiently numerous, or that the observations have been made with a care and accuracy, to entitle his labors to such extravagant eulogies as have been passed upon them, we are not prepared to admit. We presume that there is a fashion in literary matters as in all things else under the sun, and that

when a book has been cried up by one critic as something extraordinary, the press is too apt to catch the strain and renew the applause, until echo herself grows weary with repeating the sound. Dr. Phillips has produced an excellent work on scrofula; we have read it with great satisfaction, and can cordially recommend it to the profession. At the same time, we are not able to concur in all the conclusions at which the author has arrived, and feel perfectly safe in saying that he has not exhausted the subject. We allow him to speak for himself in the following extract respecting his "own ideas of the nature of Scrofula."

I conceive, then, that Scrofula is a disease of the constitution and that it is most clearly manifested by certain external signs, of which swelling of the subcutaneous lymphatic ganglia is the most conclusive. But *tumid glands*, however they may be situated, are not always a proof that a constitution is scrofulous; they may be the result of local irritation, in an apparently untainted constitution. The glands in the groin may swell, from a sore on the foot; a mesenteric gland may swell under the influence of an ulcer in the intestine; a cervical gland may enlarge under the irritation of teething, or of scalp disease. A *tumid gland*, even *in the neck*, is then no proof that the constitution of the individual in whom it is found is scrofulous. But supposing one, or several cervical glands to become tumid, in the apparent absence of any obvious local irritation, this would constitute a strong ground for suspicion, that the constitution was suffering under the taint of Scrofula. It would not, however, amount to more than suspicion, and the suspicion could scarcely receive absolute confirmation, unless we have the opportunity of observing the contents of the tumor itself. Unless the swelling of the gland be accompanied by the deposit of a product, hereafter to be described, known as *scrofulous matter*, the proof of a scrofulous constitution is, in my judgment, wanting.

In so far then as the local manifestation is concerned, the question, "What is Scrofula?" admits of a tolerably satisfactory solution: but as I regard the local affection, wherever seated, as clear evidence of constitutional disease, it is most important to inquire what that state of the constitution is which causes the local affection; and whether in the absence of the local affection, there be any certain means of deter-

mining whether a constitution be scrofulous or not. Because it may be, that the means at our disposal may be powerless to remove the matter when once deposited.

It may be objected to this view of the case, that there are scrofulous diseases in which no scrofulous matter can be demonstrated; "scrofulous ophthalmia," for instance. Supposing such an objection to be made, my answer is this; that the ophthalmia in these cases is simple catarrhal inflammation set up in a scrofulous constitution, and acquiring its particular characters, not in virtue of any thing specific in its nature, but in consequence of the state of the constitution upon which it is grafted. The particular character to which I allude, is a peculiar irritability, which is a prominent feature in inflammation set up in debilitated constitutions, and there is certainly nothing uncommon in such inflammation in persons whose health has been broken by other causes than scrofulous disease. At the time I visited the Whitechapel Workhouse, scrofulous ophthalmia was epidemic among the girls; of eighty-nine present, seventy were suffering from the disease; but of the eighty-nine, only fourteen exhibited any of the ordinary marks of scrofula; and the proportion of girls who presented marks of scrofula, found among those suffering from ophthalmia, was not greater than among those who were free from it.

I believe that diseases regarded as scrofulous, but in which no scrofulous matter is present, are not scrofulous at all, but simply the result of such low inflammatory action as is often set up in a debilitated state of the constitution.

From this it will be seen that Dr. Phillips does not regard "tumid glands, even in the neck," as proof of a scrofulous constitution; but yet in collecting statistics relative to the prevalence of scrofula, he visited parish schools, union houses, prisons, and all other institutions where children were to be found congregated, in order to ascertain how many of the inmates had enlarged glands, cicatrices, or other indications of a scrofulous taint, how many had been sent home for such causes, or how many prevented by them from attending school at all. Now, if tumid glands may exist independently of scrofulous disease, may not these glands inflame and suppurate, leaving cicatrices which could not be told from those of strumous ulcers? What evidence could the author have had

that these inmates of public charities, and prisons, were the subjects of scrofula? It is not possible to determine, by mere inspection, whether tumid glands contain scrofulous matter, or pus of another sort; it is not stated that any other means were resorted to in order to determine their nature, and we well know that it is not a very easy matter in every case to make out the diagnosis. Certain mental characteristics, and certain external features have been much depended upon as affording evidence of a scrofulous predisposition. Our author does not attach any importance to these criteria, having found that scrofula invades constitutions marked by every external peculiarity. He says:

The result of my own observation of persons whose constitutions are tainted with scrofula, has satisfied me that there is the utmost possible variety in the external characters of those who present an undoubted scrofulous taint. When the taint is made evident by scrofulous deposits, we find in one case the hair and complexion are dark, in another light; in one the cheeks are rosy, in another pale; in one the alæ nasi are expanded and the upper lip is tumid, in another both of these features present opposite characters. So that it becomes a matter of great difficulty to determine whether the presence or absence of those signs, is most characteristic of a scrofulous constitution.

But it is incumbent on me to endeavor to point out the qualities which are most commonly met with in those who are tainted with scrofula.

In the form of the body there is usually observable a want of muscular development, but even this is often absent. There is often an appearance of plumpness or roundness, which is the result not of muscular development, but simply of an hypertrophied, or infiltrated condition of the cellular tissue, and which rapidly disappears under fatiguing exercise, privation, or disease. Commonly, there is a general paleness and coldness of the surface of the body, which is owing to a feeble circulating apparatus; but in a large number of cases, about one fifth of the whole, that paleness does not extend to the face. The color of the hair is very variable, but for the most part it inclines to a dark tint. Of nearly nine thousand scrofulous children, I have myself examined, a little over 32 per cent. had light hair and eyes. The alæ nasi may be broad,

but for the most part they are not so; the upper lip, or even both may be tumid, but in a majority of cases they are not so. There is not, as some persons have supposed, any thing constant in the shape of the lower jaw, or in the appearance of the teeth. The abdomen is commonly tumid. The whole of the mucous surfaces are especially liable to derangement; discharges from the nose, the eye, and the ear, are common. The digestive mucous membrane affords early indications of suffering; the tongue has commonly a dirty whitish coating, the tonsils are usually enlarged, and they are often so tumid as to impress a disagreeable and frequently husky character upon the voice, and to cause snoring when the patient is asleep. A still more deleterious influence is exercised by these tumid bodies; they lessen so much the channel for the passage of the air in respiration that the sufficient development of the chest may be interfered with. The stomach and bowels are frequently disordered, and digestion is ill performed; acrid eructations are common, flatulence is often very troublesome, and the action of the bowels is very irregular, sometimes relaxed, at others constipated; sometimes the evacuations are clay colored, very offensive, and of varying consistency; at others, having a redundancy of bile. Similar evidences of derangement are observed in the air passages, commencing at the nose, (which exhibits increased secretions upon the occurrence of very slight variations in temperature,) and passing through their whole length. Similar phenomena are observed in the mucous tissue of the genito-urinary system; the bladder often shows an impatience of the presence of the urine, and the desire to avoid it is often frequent. The skin, though often dry and hard, is sometimes the seat of a considerable greasy exhalation; sometimes it is found to be fetid and sour. The acidity of the exhalation may be so decided as to determine a reaction upon litmus paper; in many of the cases observed by Mr. Kaye on the Mediterranean coast it was so. The scalp and other parts of the cutaneous integuments are often the seat of eruptive affections. The absence of vascular and muscular energy often causes the child to lie and sit about much, and indisposes him to enter into the energetic games of his playfellows. As to the intellectual development claimed for scrofulous persons, I am bound to say that it is usually wanting. That many scrofulous children present that character is quite true; but the result of very careful observation has convinced me, that the overwhelming majority are without those superior intellectual qualities which have been pointed out as their ordinary character. Among the better

classes, the feebleness of a scrofulous child attaches to him an interest which, without it, he might not have enjoyed. To compensate for his physical inferiority, the anxious parent seeks to make him mentally superior to his bodily stronger fellows, and frequently succeeds; but often the limit of healthy action is passed, the nervous and intellectual systems have the vital action concentrated on them too intensely; the sufferer loses flesh, the general health languishes, and the intellectual faculties may give way, destroyed by an opposite but not less sure method than that which breaks down the poor man's child.

If, as our author adds, scrofula be a disease of the constitution, and may exist without being manifested by the ordinary local signs; or if these local signs do not indicate necessarily the existence of a scrofulous constitution, of what value are these observations? They were intended to determine under what circumstances, and in what localities the disease was most frequent; and yet according to the author's own statement it is impossible, in a large majority of cases, to ascertain whether a patient be scrofulous or not. A knowledge of the frequency of any disease presupposes a knowledge of the means of recognising it. Statistics concerning the prevalence of any disease are exceedingly valuable when the disease can be readily recognised. By such data we are often able to arrive at a knowledge of the causes of disease. Thus, we know that intermittent fever originates only at certain seasons, and in particular places, and, therefore, that it is caused by some influence which is only active at such periods and in such localities. If Dr. Phillips had been in possession of means by which scrofula, when existing, could always be detected, and had found it much more frequent among children who were crowded together in large alms-houses, union houses, &c., it would have assisted us very materially in deciding upon the causes of the disease. Since that has not been made manifest we confess that we are not able to perceive how any great amount of good can result from such observations.

We pass over the third chapter, on the scrofulous deposit, without any remark, and reach the next, which is an interest-

ing and valuable one. In this the author treats of the state of the organ in which the morbid product is about to be deposited. That enlarged glands, even in scrofulous subjects, often exist without being the seat of scrofulous matter, and simply in a state of congestion or inflammation, there can be no doubt.

Commonly, if not always, glandular structures do undergo considerable change before scrofulous matter is deposited in them. They acquire a considerable increase in volume, in density, and in vascularity. The bulk may be ten or twenty times what is natural to them, the density may equal or exceed that of veal, and the change of color from increased vascularity is very remarkable.

A point of considerable interest is here presented. Is this state of the gland determined by the circulation within it of blood which has undergone change, or is it independent of the blood? Does the blood fit the organ to receive the deposit, or does the organ fit itself? This is an important question, but of very difficult solution. Important too, with reference to treatment; because if the action set up were purely local, means might be taken to change it, and render it unfit for the deposit. If the action depend only upon a general contamination of the blood, how comes it that all the lymphatic glands are not equally affected? It is notorious that they are not. The bronchial glands are affected more than twice as often as those of the mesentery, the latter four times as often as those of the neck, though in many respects least exposed, and the last named glands four times as often as those of the axilla and the groin. There must be a reason for this. It may be that the cause of the greater frequency in the glands of the mesentery, is the irritation set up in them by depraved chyle, the result of bad food or improper feeding; which state may be kept up until the blood is sufficiently charged with improper materials to occasion a deposit to be made; and I apprehend the cause of the greater frequency of the deposit in the cervical than in the inguinal or axillary glands, is that they are more exposed to alternations of temperature and to irritation; that, therefore, cæteris paribus, under the same amount of constitutional irritation, congestion is more rapidly developed in them, and therefore the deposit is more frequently found in their substance.

The author regards scrofulous matter as a deposit from the

blood, without attempting to determine whether it is the consequence of previous alteration in the composition of the blood itself, or of disease in some organ which forms and causes the deposit from healthy blood. He remarks:

As a general law, it is now admitted that morbid products are derived directly from the blood; and the questions then to be resolved are these:—Has the blood previously undergone a change in its elements, the part in which the deposit is made remaining unchanged? Or, does the blood remain in a healthy condition, the part in which the deposit is made exercising a specific influence upon the blood, and determining the character of that deposit? Or, are both removed from a healthy condition before the product is deposited?

In the case of most morbid products, the result of diseased action is to determine the deposit of matter, the previous existence of which in the blood cannot be demonstrated; yet it has been said that tubercular matter has been observed in the circulating blood. In the case of scrofulous matter, no one but Lugol has, so far as I know, asserted the observation of its presence in the circulating mass. His statement is, that he found nodules of such matter, already formed, carried along with the blood. Supposing the observation to be correct, there is no proof that such nodules were formed in the circulating fluid. Bearing in mind that this statement is unsupported by any similar observation made by others, of even the occasional existence of scrofulous matter in the blood, the evidence that I may offer in support of the opinion, that such matter comes from the blood, may be regarded as insufficient. I certainly cannot give a demonstration of the soundness of that opinion. Still, if I show that in the state of health, the blood contains materials such as are found in scrofulous deposits, and that in particular states of the economy, those materials are increased or diminished; and if I show that when particular materials are increased, scrofulous deposits are more frequent, and that the deposits are made in the cellular, or other structure of the organ, and not in the lymphatic channels, I submit that we shall be fully justified in assuming that scrofulous matter is a deposit from the blood.

The analyses of healthy blood, made by Marcet, Berzelius, and Lecanu, correspond so nearly, that we may assume that the elements are correctly determined; and we find them to consist of potash, soda, carbonate and phosphate of lime, albumen, fibrin, and probably gluten. These elements may be

found in scrofulous matter, and therefore the notion of its being separated even from healthy blood, would not be a startling proposition to lay down. All that would be required to constitute the scrofulous matter, would be that the elements should be differently combined. But that which makes it improbable that the matter can be formed from healthy blood is, that in the state of health those deposits do not occur; it is therefore fair to infer that there must be a previous change, either in the blood, or in the organs through which the blood circulates, and in which the deposit takes place, or in both, before it can occur.

In the analyses of scrofulous blood by various chemists, our author has not found sufficient uniformity to enable him to determine what changes this fluid undergoes, although in every instance there was found a "considerable deviation from the condition of the healthy blood." He quotes numerous authors, and then gives his own experience, in the following quotation:

The observations of Andral, Gavarret, and others, show that the solid, as well as the fluid constituents of the blood, undergo considerable changes from the influence of food, as well as from that of disease; but it is not shown that the increase or diminution affects all the constituents equally. There may be, at the same time, an increase of one and a diminution of another; those constituents appear to have no mutual dependence on each other.

Enfeebling agents seem to affect, in the first instance, the proportion of red globules; it is constantly diminished, while the proportion of fibrin may be increased. And supposing food to be the agent by which the change is accomplished, the process seems simple enough. Bad food produces bad chyle, bad chyle imperfectly renews the blood, perverts its elements, diminishes, destroys, or augments its plasticity, causes the predominance of certain principles over others, and possibly so changes the composition of the blood, as to determine in it non-analogous productions.

As a general rule under prolonged abstinence, the quantity of blood diminishes, successively, during the whole time of its duration, and at last the quantity becomes so small that one only wonders how it circulates; and in these cases it is com-

monly found that the proportion of albumen increases, while that of fibrin diminishes.

The imperfect accomplishment of the functions of depuration, as is observed in the Berlin Report, is also a principal cause of morbid states of the blood; any change in the exhalation of carbonic acid gas, or aqueous vapor, in the quantity of sensible and insensible perspiration in the urinary and other secretions, produces alteration in the characters of the blood; and if the materials for those several products be left to accumulate in the blood, they act as poisons; it must be evident, therefore, that any material interruption of those functions, if not compensated for, or supplied by some other, must necessarily induce a change, not only in the quantity or quality of the materials of the blood, but also in its vitality.

To show how far surrounding circumstances, by inducing Anæmia, may alter the natural condition of the blood, I may state, after Andral and Gavarret, that in 1,000 parts of healthy venous blood, we may find:—3.0 fibrin, 127.0 globules, 80. solid matter of serum, 790. water; while in Anæmia its state has been found, so changed as to yield: 1.2 fibrin, 36.0 globules, 80 solid matter of serum, 881.8 water. Here the diminution of globules and the increase of water is very striking, so also is the decrease of fibrin.

Baumes stated that in scrofulous patients the different constituents of the blood are less intimately mixed than in healthy persons, the union of the molecules being feebler than in the state of health. Thouvenel observed the same state, and conceived that it was owing to an excess of acrimony. Denis also alludes to it, but he refers to an excess of alkalies. Supposing acrimony to mean acidity, it is certain that both alkaline and acid principles are capable of producing important changes in the constitution of the blood.

Dubois (d'Amiens) also observed the diffluence and imperfect coagulability of the blood in scrofulous persons; he also pointed out a change produced in the form of the globules; he found them "lenticular, the central depression, or spot, being extended beyond its natural limits, and so defined that they looked like wheels," "many of them being also deformed, notched, or otherwise irregular."

I have examined the blood in sixty-seven instances of scrofula, and although I have almost always observed a considerable deviation from the condition of healthy blood, the changes have not presented sufficient uniformity to induce me to regard any particular condition as specially characteristic of scrofula; the changes are such as seem to belong to a tol-

erably extensive group of affections, all, it is true, being connected with disordered nutrition and debility.

In almost every case, the coagulum was relatively small, the serous menstruum large, the clot was usually very soft, almost diffluent; in a few instances only it was tolerably firm. In almost all cases, the proportion of globules was considerably under the healthy standard. The fibrin had not usually undergone much change; in a few cases it exceeded, in many more it was below the healthy standard. In most instances there was a considerable increase in the proportion of albumen; in almost every instance the proportion of salts was found to exceed the healthy standard; in some instances it was nearly doubled. At one time I thought I had clearly made out, that the proportion of chloride of sodium was deficient, and certainly in many cases it was so; but in many other cases that deficiency was not evident. If succeeding observations should establish a frequent co-existence, it might be well to carry out Russell's salt water plan in the treatment of the disease; he conceived it to be efficacious. It may be, that salt water so used acts as a stimulant of the whole economy, increasing plastic energy, and thus improving the vigor of the system.

In some cases I have observed, under the microscope, as did F. Dubois, that the coloring matter adhered closely to the globule, and that a certain portion of it seemed to be dissolved in the serum, but I do not, with him, regard this as an ordinary character of the blood in such cases. I have usually met with this peculiarity when the blood has been drawn many hours, and I have been more disposed to regard it as a consequence of a disposition to early decomposition than as a proof of any vital change. M. Dubois has always, in such cases, observed the spheroidal and the lenticular globules. He conceived that the lenticular globules were changed in form, some appearing as if perforated like wheels, others irregular or notched. Although I have observed similar appearances in the blood of scrofulous persons, I have also observed such appearances in the blood of persons who did not suffer from scrofula; in fact, in many of those diseases in which anæmia is a distinguishing feature; and I am not, therefore, in a condition to point out any particular state of the blood which is certainly characteristic of scrofula; but it is certain that if we examine the blood when the marks of scrofula are evident, its altered condition is also evident; but I know no particular condition of the blood which clearly marks the existence of scrofula. However the occurrence of similar changes, at the same time, in different regions of the body; seems to point to some other than a local

agent, as producing the change in the organ in which the deposit is made—and that agent the blood.

This discrepancy in the analyses of the blood in scrofula may have been owing to the absence of inflammation, or to the different degrees of inflammatory action existing at the time the blood was abstracted. The following are the results obtained by ourselves in the analysis of the blood of a strongly marked scrofulous subject, with considerable enlargement of the cervical and mesenteric glands, the latter of which being also much inflamed:

Temperature of the blood, 98½°
Specific gravity, 1028

Water,	807.
Solid residue,	193.
Fibrin,	3.836
Albumen,	83.333
Salts and extractive matter,	20.
Blood corpuscles,	87.

The fibrin and water are slightly increased in this specimen; the salts are very much augmented, being nearly double the normal quantity, while the corpuscles are somewhat diminished. The few analyses of scrofulous blood which we have made, like those of our author, have not been so uniform in their results, as they have been in fever and some other diseases, and yet, in the different cases, there was sufficient diversity of symptoms to warrant the belief, beforehand, that the results would be various. But unsatisfactory as these observations have been, if we are to make any farther progress in the investigation of scrofula, this must be the starting point. That the blood is changed in this affection is shown by all the observations that have been made concerning it; and although it may be very long before the precise alteration in this fluid which constitutes scrofula is ascertained, yet it may be done by making a sufficient number of analytical observations to enable us to determine the true relation between the patholo-

gical conditions of the blood and certain local signs or symptoms. We must ascertain in this way the anatomical characters of the disease in its various stages, and we must learn by well marked signs to recognise the disease in these different stages; we may then hope, by collecting statistics as to the circumstances under which it most frequently occurs, to learn something of its causes.

The author's opinion in regard to the causes of scrofula may be gathered from the following extract:

The alleged causes of scrofula are so many, and their action is said to be so constant and so efficient to produce the disease, and so few human beings can be wholly protected from their influence, that it is wonderful so many persons should appear to be exempt from the affection. It is equally surprising how slender usually is the proof offered by the advocates of a particular cause, in support of its complete efficiency, to induce the development of the disease. The consequence of such vague assumption is, that those who are not satisfied with the sufficiency of one alleged cause, are prepared to advocate as conclusive the influence of another, and it may be a very opposite one, with no stronger evidence in support of the latter theory than was furnished in favor of its predecessor.

One person advocates the opinion that the *hereditary* is the only cause; another contends that the disease is *always acquired*, and never inherited; one regards *contagion* as an efficient cause; another maintains that the disease is never thus communicated. One points to the *bad air of towns* as the cause; another finds the disease more prevalent in the country; one refers the evil to *farinaceous;* another, to *animal food.* It would be easy to enlarge this catalogue, but it will be sufficient to mention, that hereditary influence, syphilis, bad air, bad food, and a cold and damp atmosphere are the causes to which have been most frequently assigned the production of scrofula. The error of each theory is its exclusiveness; and when we reflect upon the difficulty of estimating the unmixed influence of any single cause, and when it is made probable that many causes are in action, we can scarcely comprehend how it happens that able inquirers should maintain, with so much pertinacity, not alone the efficiency, but also the universality of one.

The difficulty of estimating the force of any of the so

called causes of scrofula, is owing to the fact that the opportunity of observing a single agent in action alone is very rarely afforded; where one cause exists, another is, almost certainly, intimately associated with it; and to assign to each its proper influence is rarely possible. This is particularly the case with bad food, bad air, and bad clothing; the existence of one almost implies the presence of another. He who is too poor to buy good food, is also too poor to procure good lodging; and although there may be instances where we find much privation associated with the casual occupation of good lodgings, usually it is not so, and we have not had opportunities of observing such cases with sufficient frequency to make any useful deduction from them. As far as it can be accomplished, however, we must attempt to estimate the power of the many influences which are said to be efficient to produce scrofula, because it may be easier to avoid the causes of the disease than to effect its cure when once developed; and therefore if we can indicate the sources of evil with sufficient clearness, much may be done to withdraw the people from their influence.

The patient labor of our author has not resulted in the addition of anything new to our curative resources in this most formidable disease. He seems, indeed, to have attached far more importance to statistics relative to its prevalence, to the refutation of popular theories, and to determining the occupations or modes of living which favor or prevent scrofula, than to the remedial measures demanded when the disease is once fully developed. He divides the treatment into preventive and curative. Under the first head will be found many valuable hints as to the proper method of raising children, so as to guard against the disease. Indeed, all that is said upon this subject is eminently practical and important. An ounce of prevention is better than a pound of cure, is a maxim in which he seems fully to believe, and in few diseases, we are persuaded, can more be done in the way of prophylaxis, and less in the way of cure than the one under consideration. We find, therefore, no cause of quarrel with Dr. Phillips, because he lays as much stress upon the hygiene as upon therapeutics of scrofula. One of the preventive measures sug-

gested, and by far the most efficient, he is not able to sanction. Lugol, in the true utilitarian spirit, has proposed to put restrictions upon marriage, thus limiting the propagation of the species to those who enjoy sound and vigorous health. He would not pitilessly sacrifice children, as the Spartans did, because they were too feeble to become useful to the State, but he would "arrest the evil at its source, by interdicting marriage to sickly and infirm persons." Doubtless this would be drying up one most prolific source of human suffering, but would it not be at a great sacrifice of social and domestic happiness? Such is the conviction of society, as well expressed by our author in the following paragraph:

Lugol's proposal to establish legislative restraints upon marriage, and thus render health and vigor necessary qualifications for wedded life, may be less repulsive to the humane tendencies of modern civilization, than were the stoical principles of Spartan government; but his suggestions would be as little tolerated in the social condition of our times, as would the code of Spartan laws, and we must look to other means than these, for preventing or arresting the development of scrofula.

What are some of these? They are given in this volume in detail and with great judgment. Diet is one of the most influential.

Every child should derive its first food from the breast of a healthy woman; but many children cannot obtain this supply. The mother may be weakly, but if she has milk, she often chooses to nurse her child; and if she flags, from the drain upon her, she fortifies herself to meet it, by the use of as large a quantity of stimulants as may be necessary to support her failing strength; but such feeding often deteriorates her milk and lessens its nutritive power, so that the child's nutrition suffers. Or, the mother's supply may be cut off, then, if the circumstances of the parent admit of it, a foster-mother may be obtained, and the evil be thus partly remedied. But a foster-mother may not be, indeed, by the many, is usually not, attainable, and artificial feeding must be substituted. We have already shown, that under even favorable circumstances,

that is objectionable. But when driven to it, the object we must seek to obtain is, to place the child, as nearly as may be, in the same condition as it would be if suckled at the mother's breast.

The fluid which mostly resembles woman's milk, is that of the ass; but the supply is so small, that, practically speaking, it cannot enter into our consideration as a substitute for the milk of the mother. The ordinary substitute for the mother is the cow; and we have already seen how greatly her milk differs from that of woman. It may be diluted, but though richer than woman's milk, in certain materials, it is poorer in others; and if dilution reduces one element to its proper standard, it leaves another below it; and the milk of the cow, even then, continues to be very unlike the child's natural food. Further, it usually happens that many cows concur to furnish food for a single child; the milk of twenty, or even fifty cows, may be mixed together, and although the milk of one cow may not disagree with the child, the mixture of two or more may. Besides, before the child gets the milk, it has usually been drawn many hours, often long enough to undergo a complete separation into parts, and it is no longer a homogeneous fluid, like that which the child draws from the mother's breast. Before it is used, it is often subjected to a heat sufficient to coagulate the albumen, and is thus rendered more difficult of assimilation. Those evils might, to some extent, be remedied, though in practice they will usually continue. The milk may be obtained from a single cow, may be properly diluted, and may be given before any separation has taken place.

Exercise ranks next after food, and is indispensable to the development of the youthful system, and to the maintenance of health. Good air and nutritious food are necessary, but they will not avail without the free, full exercise of the body, which causes digestion and an active circulation. Dr. Phillips conveys the idea in forcible language in the subjoined extract:

It is not, however, enough to provide the means for making the blood pure by the influence of good food and good air; but means must be taken to make it circulate through the body with the necessary vigor. This it is which gives the value to the games of children, whereby active exercise is provided. Three things are therefore necessary to produce

perfect health in a child, even when born of the ordinary vigor: good food, good air, good exercise. Give the child these, and no matter what may be the ailments of its parents, or the climate in which he lives, you will do much to build up a vigorous and healthy man. In England it is among the rural population that the conditions to which I have alluded are most fully realized, in as far as concerns air and exercise; but after the child has been deprived of the mother's breast, its food is almost exclusively vegetable. Taken as a class, it is amongst this portion of our population that life has the highest numerical value; but it is among them that scrofulous swellings are most commonly found.

If we had room we should like to extend our extracts on this head, but for other topics connected with the prevention of scrofula, we must refer to the work itself.

Of the curative treatment laid down in this volume, we are not able to speak so favorably. It strikes us as, in some points, essentially defective. It indicates, indeed, all the popular remedies in use in the treatment of scrofula, and gives an estimate of their relative value; but yet there is a deficiency of detail which will be sensibly felt by the young practitioner. Moreover, the preparatory treatment so important to success in the management of this disease is not as fully detailed as we should have liked to have seen it. In a word, the author does not appear to have dwelt with as much satisfaction upon this branch of his subject as upon some others, perhaps because his faith in the remedial treatment is not great. We close our notice of his work by quoting his remarks relative to iodine as a remedy in scrofula:

In my own practice, I have exhibited every form of iodine extensively in cases of scrofula, and supposing the patient to remain exposed to the influence of the same conditions in which the disease was at first manifested, and the period of the year to be that which has not been found favorable for the cure of the disease under other modes of treatment, I cannot say that I have had reason to estimate the curative powers of iodine so highly as many others have done. I know that among the out-patients of hospitals, whose circumstances remain unchanged, and who apply at the latter end of au-

tumn, or the beginning of winter, we may often exhibit iodine in every form for weeks or months, without producing any sensible amelioration in the patient's condition. I know also that at the beginning of summer, a patient similarly affected and similarly treated, will, often in a few weeks, exhibit a marked improvememt—but how much of this should be referred to iodine? How much to season?

I by no means wish to express the opinion that iodine has no curative influence in scrofula; and although I believe that it is not, ordinarily, strong enough to make head against the disease in an unfavorable season of the year, yet I think I have known some cases in which decided benefit has seemed to result from its use, even when the season and other circumstances have not been favorable, and when no change in those circumstances has occurred, beyond the exhibition of iodine; and yet, even then, I refer the good to a general alterative action upon the economy, and not to any specific action; the general health has improved under the employment of the medicine, and the local disease has abated. Such cases have, however, formed a minority of those in which iodine has been administered by me, and I have endeavored, though not satisfactorily, to account for these exceptional cases, by some change, some effort made by the system itself.

What the exact influence of iodine is in scrofula, it is difficult to determine—I mean when not administered in combination with other substances than potass. I am satisfied, however, that in many cases under the influence of iodine, the tongue will become much cleaner, the appetite will improve, and the secretions will acquire a healthier character. And the impression left on my mind is, that the good which may be experienced from the use of this medicine, is not owing to any specific influence which it exerts over scrofula, but to its occasional power of modifying the mucous surfaces, so as to enable them to assist in producing healthy nutrition.

Whatever good may be derived from iodine when uncombined, I think that when associated with particular substances, with iron, for instance, its power over the disease may be increased; but it would be difficult to prove that there are not other forms of iron which act as favorably as the iodide in cases of scrofula. If that impression be correct, as much, if not more, of the benefit may be owing to the iron as to the iodine. However this may be, I have found the iodide of iron an useful tonic in such cases; and I always give it in the form of syrup, never exceeding four grains of the medicine in twenty-four hours. Whatever form of the medicine may be used,

exhibiting it beyond a fortnight
e; at the end of that time, the prepa-
side, aperient medicines should be em-
should be resumed with the same precau-
ay any virtues which the medicine possesses
y brought out, and the inconveniences some-
ienced from its administration will be, as nearly as
avoided.

J. R. B.

ART. VIII.—*The Water Cure, or Hydropathy.* From the British and Foreign Medical Review. By JOHN FORBES, M.D, F.R.S., one of the Editors of the "Cyclopædia of Practical Medicine," Editor of the "British and Foreign Medical Review," etc., etc. Philadelphia: Lindsay & Blakiston. 1847.

A popular modern writer has termed the soul "a succedaneum for salt," without some portion of which the body would inevitably putrefy. Some admixture of truth is equally essential to every heresy, whether in politics, medicine, or religion. A palpable, bare-faced absurdity, unrelieved by any gleams of reason, would not long pass current in any enlightened community. Where, therefore, we find any doctrine or practice prevailing for a length of time, and over a wide extent of country in which men read and think, we may take it for granted that it has some show of truth about it. It has some foundation, or it would soon fall to the ground. Men do not believe without evidence, though the evidence is often most insufficient, and the opinions formed most false. Homœopathy would be voted by any man of sense, hearing its tenets explained for the first time, a monstrous absurdity, and yet thousands are duped by its pretensions every day. Why is it? It is because remarkable recoveries sometimes take place while these doctors are standing by, and their infinitesimal doses get the credit of the cure. If there were no *vis medicatrix naturæ*, homœopathy would soon come to an end. But

[illegible]

[illegible]

[illegible]

adopt the sentiments of Dr. Forbes, who discourses thus concerning it:

When the religious reformer proposed to adapt profane airs to church psalmody, saying that he saw no good reason why the devil should have all the good tunes to himself, he is generally supposed to have acted as wisely as he thought shrewdly and spoke quaintly. In like manner, we see no good reason why the doctors of the orthodox or legitimate school, should refuse to accept good things, even at the hand of the hydropathists. They have done like things before now, as the pharmacopœia, in more pages than one, can testify; and we have not heard that there has been any great reason for regretting that they did so. For our own parts, we avow ourselves of such a catholic spirit, and so lowly minded withal, as to be ready to grasp any proffered good in the way of HEALING, whosoever may be the offerers, and wheresoever they may have found it. Not merely hydropathy, but even mesmerism, yea, stark-naked and rampant quackery itself, may, in this sense, be a welcome knocker at the gate of physic. It is not the demerits of the donor or the birthplace of the gift, that, in such a case, we are bound to look to—but simply whether it is qualified to aid us in our glorious and divine mission of soothing the pains of our fellow-men. If it is so qualified, the baseness of its source will be lost in the glory of its use; and, if ought of its original impurity still attaches to its application in our hands, the fault will be in us, not in it. A saint may sing the devil's tunes without contamination; a hero may wield the weapon he has wrested from a robber or a murderer; the medicament or the formula of the most arrant quack may be hallowed in the prescription of the true physician.

Perhaps our readers have not met anywhere with a personal description of Preissnitz, the founder of Hydropathy. Sir Charles Scudamore thus describes him:

His countenance is full of self-possession; rather agreeable; mild, but firm in expression; with an eye of sense, and a pleasing smile. The small-pox and the loss of some front teeth from an accident, impair his good looks. His manners are sufficiently well-bred. On closer acquaintance, you discover that he is quick in perception; is reflective; prompt, however, in decision; simple and clear. He inspires his pa-

tients with the most entire confidence, and he exacts implicit obedience.

Other travelers give a similar description of him.

They all agree in stating that he is a most arbitrary and tyrannical despot, issuing laws as irrevocable as those of the Medes and Persians, commanding obedience with a haughtiness that might well excite admiration and envy even in an autocrat, and exciting as much fear in his patients as is found in the subjects of the Grand Turk himself. He is also represented as remarkably cool and collected in emergencies, ever ready with his remedy on occasions of danger, and possessed of an imperturbable self-reliance. These traits suffice to prove that he is a man of original and powerful mind, exactly adapted to carry out a novel and startling practice. While his firm and decided manner is calculated to secure the confidence of his patients, his coolness and self-reliance enable him easily to bear the responsibility by which such confidence is attended.

His practice originated in a succession of trifling accidents, by which he was led to employ bathing in a neighboring spring for the relief of disease. It is not necessary to give them in detail. Success in the first attempts procured him a local renown, and he became the village doctor. From villagers his fame soon spread to patients of a higher rank, and Graeffenberg gradually became the resort of the hipped and the halt from all the surrounding district. By these his praises were sung louder and louder, until all the world began to furnish him patients by the hundred. He now possesses an enormous establishment, capable of containing several hundreds of patients, which is almost constantly crowded with ladies and gentlemen of every degree, and from every nation; while his disciples and followers, as is well known, have spread themselves throughout the world, and maintain, in every country, numerous and flourishing establishments formed on the original model of Graeffenberg.

The following is a pretty full account of his *methodus medendi:*

In his first interview with the patient, after hearing sufficient to give him a rude insight into the locality and general

features of the malady, Preissnitz proceeds to investigate its suitableness to his method of cure. He does this by sprinkling the surface of the body with cold water, or witnessing the taking of a cold bath, and then watching the development of reaction. If this appears in a certain amount of activity, he pronounces his case appropriate for his treatment; if not, he advises the abandonment of all hydropathic intentions. This is a mode of ascertaing the the power of the constitution quite original, and it cannot be said to be unscientific. The power of resisting the external application of cold is a most essential conservative property of the animal system, and the degree to which it exists must be regarded as, in some respects, a criterion of the amount of *vis medicatrix* possessed by the patient. We see no very decisive reason for pronouncing it a more fallacious guide than the orthodox custom of feeling the pulse. The only objection to it that occurs to us is that it may not be always free from hazard

This point being satisfactorily determined, the patient is straightway admitted into the mysteries of the cure. In the first place, he finds himself restricted to a peculiar diet. Every stimulant is absolutely prohibited, from brandy and claret, to mustard and pepper; so, also, are most of the luxuries imported from foreign parts, such as tea, coffee, and every kind of spice. The meals consist of three—breakfast at eight, dinner at one, and supper at seven or eight o'clock. For breakfast, cold milk is the beverage, and bread and butter its only substantial companions. At dinner, there is no other restriction than those above named. Supper is a repetition of breakfast, with the occasional addition of preserved fruit or potatoes. Throughout the day, no warm beverage whatever is permitted, and much of the food is brought to table considerably cooled. As some compensation for these mrnifold deprivations, the patient is allowed to gratify his appetite with every reasonable variety, and a free abundance of substantial and nutritious food. He finds it a maxim that generous diet will promote his recovery, the treatment being responsible for preventing surfeit. He no longer finds an embargo laid on fruit and vegetables, and is not expected to dine seven days in the week off dry bread and mutton chops. So that, on the whole, there is perhaps about an equal amount of indulgence and restriction, as respects diet, to a patient coming to the Graeffenberg rules from those of some fashionable physician in London.

In the next place, the majority of patients are directed to enter upon a course of water-drinking, the quantity of water

varying from five or six to thirty or forty tumblers in twenty-four hours. A large portion of this is taken before breakfast, the rest at suitable periods after meals, so as not to interfere with digestion, with frequently a glass or two the last thing at night. Exercise is generally advised at the time of water-drinking, except when this accompanies some other process of treatment incompatible with it.

A third rule insisted on is, that every patient shall take a large amount of exercise during the day. This is, to some degree, indispensable after the cold baths, as a means of procuring the necessary reaction. Walking in the open air is the mode generally selected, when possible. In case of bad weather, or lameness, other plans are contrived; such as gymnastics, sawing or chopping wood, &c. As a general rule, every patient is required to take a long walk before breakfast. It is a *vexata quæstio*, we believe, among hydropathists, as among doctors, whether the patients should rest or walk immediately after a meal; but the water-doctors generally incline to advise very gentle exercise at such times; and, we believe, properly. The well-known experiments on greyhounds, and such other convincing facts, are counterbalanced, to say the least, by the habits of the working man, who proceeds to his labor as soon as he has swallowed his dinner, and rarely suffers from doing so.

After these preliminaries, and the case being pronounced suitable for the treatment, the next morning witnesses the patient's initiation into more active preceedings. At an early hour of the morning, varying according to the time required for the operation about to be undergone, a bath attendant enters with the formidable machinery for the administration of a rubbing with a wet sheet, a packing in the dry blanket, or a packing in the wet sheet. The first of these processes consists of throwing a wet sheet over the whole person, and applying upon it active friction of a few minutes' duration. A glow is thus excited. The patient then dresses, takes his water, and sets forth upon his morning's walk. The second of the above three operations requires the patient to be enveloped in several blankets, with perhaps the superincumbence of a large feather pillow, until free perspiration is excited, which generally requires a period of about three hours. When the perspiration has continued the prescribed time (from fifteen minutes to an hour, or more,) the patient is subjected to some kind of cold bath, either by the wet sheet, as just described, by pouring water over the person from pails or watering pots, or by taking a plunge bath. This being followed by

friction and water drinking, the morning's proceedings are concluded by exercise. Packing in the wet sheet is similar to the foregoing, with the addition, next the skin, of a sheet wrung out of cold water, It is generally of shorter duration, as forty-five minutes or an hour, the object being to excite a glow, instead of perspiration. It is followed by cold bathing, as just described. During the packing, in both instances, some glasses of cold water are imbibed through a tube.

At other parts of the day, other portions of the treatment are applied, such as the sitz-bath, the douche, the shower-bath, head-bath, foot-bath, &c.

The sitz-bath is a tub of cold water, in which the patient sits for a period varying from a few minutes to an hour, or even longer, using constant friction to the abdominal region. The other baths mentioned in this paragraph need no description. These, as well as the former processes, are sometimes repeated during the day. In certain cases the day's proceedings commence with some of them, in place of those previously mentioned. A rubbing with the wet sheet is frequently employed before getting into bed at night.

In fever, from whatever source, the patient is enveloped in a succession of wet sheets, renewed as often as they become warm, for a period varying with the intensity of the case—say, from 30 minutes to 5 or six hours. In other similar cases, cold immersion or affusion is employed with the same view—viz: to reduce the morbid heat of the system.

The *umschalge*, or compress, is an essential and seldom-omitted part of the treatment. It is a cloth, well wetted with cold water, applied to the surface nearest the supposed seat of the disease, securely covered with a dry cloth, and changed as often as it becomes dry during the day. It is sometimes covered with a layer of oiled silk, which, by impeding evaporation, prevents the inconvenience of frequent change. This compress speedily becomes warm, and remains so until dry. It is termed a heating or stimulating bandage. In cases of superficial infiammation it is more frequently changed, so as to be kept cold, whereby its effect is just the reverse, being then a local antiphlogistic.

In other establishments the sweating has been effected by other means than the simple envelopment of Preissnitz, as by the vapor bath, or a chamber highly heated by a stove. We have heard of a temperature of 180°, and even that of 198° Fahrenheit, being employed for this purpose. The blankets used by Preissnitz are very bad conductors of caloric, therefore they cause the heat given off by the body to be accumu-

[illegible] is [illegible] by the enlightener influence of which the [illegible] acted is effected. This process differs in no other manner than it differs the [illegible] of other [illegible] by passing the same [illegible] heat of any other origin. The [illegible] heat, when thus [illegible], becomes a [illegible] to the surrounding atmosphere. Being [illegible] out into the body by [illegible], it [illegible] an [illegible] of [illegible] heat and [illegible] heat. Therefore, in cases where some [illegible] is required, we all suppose to [illegible] advantage to result from using other [illegible] heat [illegible] advantages in a higher temperature than that [illegible] heat alone. But we would [illegible] this [illegible] heat. Agents which, if a well known law, [illegible] would therefore restrict the full [illegible] of the [illegible] process. For this reason it is used to prevent patients from parting with their moisture in perspiration. For the same reason it should not be used when the intention is to promote the removal of moisture, or to promote perspiration.

A point [illegible] insisted on by Preissnitz is, that his patients should [illegible] from wearing flannel next the skin. When we consider how generally the use of this article of clothing has been advised by physicians and adopted by invalids, especially in this country, we can easily conceive that strong prejudices will exist in the minds of patients against relinquishing it. Yet it appears to be almost universally discarded by hydropathists, and, as far as we have learnt, without any mischievous consequences.

Another maxim of Preissnitz is, that his patients are never to take any kind of drug. It should be remarked that, not being licensed to practice medicine, it would be illegal for him to administer drugs. So that it does not follow, from his disuse of them, that he himself would be opposed to their use in *all* cases, much less that their use is in any way inconsistent with his practice. His medical disciples, not being similarly restricted, so far as we can learn, usually employ drugs occasionally, though sparingly.

Such is hydropathy, in which the following points are worthy of note: First, that all stimulants from internal parts are withdrawn; and thus the system is at once delivered from some of the most fruitful causes of disease. No alcoholic or other stimulating drinks are allowed, and the nervous system, shattered by the excesses so incident to civilized society, is per-

mitted to regain its tone. Secondly, the system of diet enforced is such as other practitioners seldom venture to prescribe. In these circumstances we find an explanation of many of the cures of hydropathy so much vaunted. The novelist, Bulwer, worn out by a life of dissipation and mental labor, having failed to regain his health amid the excitements of his city life, went to the country, submitted to the regimen of the "water-cure," and returned to London well. To him it appeared something wonderful; so marvellous, that he must forthwith give his experience to the world; but to the physician there appeared nothing wonderful about it, except that a man of reputed sense could fail to see in his altered mode of life the cause of his cure.

A third, and certainly important, principle of hydropathic treatment is, that almost all its measures are addressed to the surface. Most physicians allow, that in our practice we are too apt to neglect the skin. Hydropathy is guilty of no such neglect. Fourthly, this system enforces a method of most energetic general and local counter-irritation; and in addition to this, the use of cold water is one of the surest modes of reducing artificial excitement, as physicians have generally understood, at least since the time of Currie. Finally, the application of cold water to the body is well known to be tonic; withal, exercise is enjoined.

Do we not find in these influences the "salt" which, thus far, has saved the system of Preissnitz? Have we not in this enumeration causes enough to explain all the cures which have resulted from hydropathy, supposing them to have been as numerous as the advocates of the system pretend they have been? Admitting this, it by no means follows that hydropathy, as a system, is to be countenanced. As practiced now, it is a system of arrant quackery; but that affords no good reason why the profession should not profit by the lessons it has taught. These superstitions will arise in medicine; in one age they come as *metallic tractors;* in a more remote one they took the shape of the *royal touch;* again it was *mesmerism;* now it is *hydropathy.* We had as well look these un-

welcome intruders in the face, and weigh impartially their merits, if, perchance, they be found to possess any. If they are wholly destitute of truth—if there be no soul in them at all—they will soon die and vanish out of sight, and there is no need that we should assail them. If there be any thing in them that will avail us in our contests with disease, then "why should the devil have the good tunes to himself?" Certainly, scientific physicians can make a better application of water than the ignorant water-doctors: and after all, to adopt the language of the author of the tract before us, "the difference between quacks and respectable practitioners is one, not so much of remedies used, as of skill and honesty in using them."

Art. IX.—*A Practical Treatise on the Diseases of Children.* By James Coley, M.D., Member of the Royal College of Physicians in London, &c.: Author of a Treatise on the Remittent Fever of Infants, &c.; and of Essays on Phlegmonous Erysipelas, &c. 8vo. pp. 414. Philadelphia: Ed. Barrington & Geo. D. Haswell. 1846.

The catalogue of diseases treated of in this volume is a very formidable one; we have taken the pains to count the list, and find that it embraces two hundred and thirty-three affections, medical and surgical. As we have heretofore stated in the author's own words, it was the intention of Dr. Coley to give to the profession "a comprehensive work." He has studied to include in it all the maladies and casualties incident to infancy and childhood. Beginning with the diseases connected with the separation of the umbilical cord, he omits no affection, however trivial it may be, by which life in its first stages is endangered, or the comeliness of the person impaired. The minuteness of his subdivisions may appear to the reader, at first, to be carried to an unnecessary extent, and as being tedious and perplexing, but the young practitioner, making out

his diagnosis at the bed-side, will not object to the work on this acconnt. Snch an one requires a guide, which will enable him to recognise all the forms of disease which show themselves on the skin, in the eyes, the eye-lids, the mouths, of children, many of which, the experience of every physician soon teaches him, are of a character greatly to embarrass the novice in his profession, We do not say that even with the aid of this volume, which enumerates so fully the disorders of children, the young practitioner, without the advantages of having seen disease itself, will always be able to attain a correct diagnosis. This, we presume, is hardly to be expected from books alone. Disease must be seen to be understood; but it is not in the power of all students to see a great variety of diseases before entering upon the practice, and to such as have not had access to hospitals, or been much in the sick chamber, such works as this are almost indispensable.

The author is brief upon most of the points embraced in his volume, disposing, for example, of the diseases under his first head, in five pages, and of the affections of the eye in about five times as many. To imperforate anus he devotes something less than a page, remarking that, fortunately, it is a rare defect. The opening may be partially closed, or it may be "obstructed entirely by a membrane extending over the orifice, and projecting;" in either of which cases the procedure necessary is easy and successful, a slight operation removing the obstruction. But in other instances the rectum terminates at a distance of several inches from the situation in which the anus ought to be found; in some it terminates in the bladder or the vagina; and in others it is altogether wanting. We once saw a case in which the bowel had its termination in the vagina, and we made two unsuccessful attempts to extend it. The first operation was performed a few months after the birth of the child; the incision was slight. We undertook a second when the child was about a year old, and after it had begun to experience irritation and trouble from the passage of the hardening feces. This time we pushed the incision to the extent of two inches, but without finding the rec-

tum. The child ultimately died, and we should not be disposed to enter upon the operation again.

Purulent ophthalmia is the earliest of the diseases with which the eyes of infants are affected. It commences, according to our author, about the third day after birth. As the inflammation progresses it is accompanied by extreme intolerance of light, and if not retarded by proper remedies the conjunctiva assumes a billious appearance, resembling inflammation in the mucous coat of the intestines.

The effects produced upon the cornea are various. There may be effusion of lymph between its superficial layers constituting temporary blindness; or ulceration of a destructive character may creep round its margin, and terminate in gangrene or mortification, and incurable opacity; during which process the lens may escape; or ulceration may present itself at one spot either through the mucous or serous envelope of the cornea, and terminate in protosis or staphyloma; or ramolissement or softening of the cornea may occur, followed by an aperture through which the humors of the eye may escape; or suppuration of the globe may be the final result. This softening of the cornea, it must be observed, however, is not peculiar to this disease, as it was produced by an experiment made by Magendie on a dog, which he had confined exclusively to the use of sugar for food, whereby it was reduced to extreme exhaustion and marasmus; and Dr. C. M. Billard has seen many infants in the Foundling Hospital at Paris afflicted with softening of the cornea and complete marasmus by long-continued gastro-intestinal disease, and had no palpebral inflammation. I may also add that softening of the cornea has appeared in my practice in the adult as well as in infants as a consequence of purulent ophthalmy, when the patient has been subject to derangement in the chylopoietic viscera, which in this disease as well as in iritis, it will be found essentially necessary to modify or remove. Mr. Middlemore has once seen dropsy of the eye follow from this form of purulent ophthalmy. As results of this disease the iris may become closed, the pupil may be rendered angular, the iris may form adhesions with the lens or cornea, or be projected through an ulcer in the cornea protosis of the iris.

It is well known that children born of women laboring un-

der gonorrhœa are pretty sure of becoming affected with this ophthalmia, and the prevalent opinion has been, that the affection is produced in every case by acrid matters applied to the eye at the time of birth. The author combats this idea, and it appears to us with propriety.

This conjecture is not altogether supported by facts, as the disease has been known to occur and pass through all its stages and end in opaque cornea *in utero;* and congenital opacity has been observed to disappear gradually by absorption after birth. There can be no doubt that gonorrhœa and other acrid discharges are frequent causes; but, as far as my own observation has gone, I have been satisfied that the disease has originated from exposure to cold, and especially an easterly wind, more frequently than from any other cause; and my belief that such is the most common origin of the disease is confirmed by the extensive experience of Langenbeck of Vienna, who remarks that the children in the Foundling Hospital in that city who are exposed to cold, and nearly dead from starvation when admitted, are much more frequently attacked with purulent ophthalmy than those who have the advantage of maternal care in the Lying-in-Hospital, whose mothers are women of the lowest description and almost invariably laboring under gonorrhœa.

Hurtletoup attributes the frequency of purulent ophthalmy at the Foundling Hospital in Paris to the crowding together a great number of infants in badly ventilated wards, where, he may have added, they are left at that helpless age with only one or two attendants in each apartment. My own experience proves that the purulent ophthalmy of infants occurs during the month of May, when the easterly wind and erysipelas prevail in the proportion of 7 to 8 compared with all the other months in the year.

In the commencement of the disease the usual mild washes will generally be sufficient to effect a cure. One composed of sulphate of zinc and distilled water, in the proportion of two grains of the former to an ounce of the latter, may be employed. It is proper also to give the infant a few doses of carbonate of magnesia, and if fever attend, calomel in small doses should be administered. No other medicine acts so benignly on the systems of children as calomel. Sometimes the oph-

thalmia resists these measures, when the author recommends an injection of the nitrate of silver, in the proportion of from five to ten grains to the ounce of water.

The injection in every instance should be introduced frequently every day by means of a glass or bone syringe, passed under and along the upper eyelid at the outer angle. When the granular condition of the mucous membrane obstinately persists, the morbid surface should be rubbed daily with sulphate of copper; but it must be observed that such a state of that membrane would not be met with if local depletion be timely adopted. Hence, at the commencement of a severe attack, leeches should be applied to the upper eyelids; but after the acute stage has passed by, stimulants will be found the best applications. These opposite modes of treatment are rendered necessary by the state in which the disease is found when the practitioner is consulted, and therefore must not mislead the inexperienced into a belief that every case can be safely treated alone by stimulants. The nature of the disease is the same as that of purulent ophthalmy in adults, which it is well known cannot be safely treated, when severe, without active and decided sanguineous depletion in the commencement. When suppuration of the globe takes place, the patient experiences great suffering, which should be relieved by puncturing the cornea. Mr. Walker, of Manchester, is a strenuous advocate for the exclusively stimulant treatment. He says the best remedy, especially to prevent ulceration of the cornea, is the application of nitrate of silver in substance to the lining membrane of the palpebræ. His practice consists in applying the caustic not only to the inner surface of the lids, but to the chemosed, conjunctival covering of the front of the globe, and holding it there a few seconds. As the disease advances, he states that the facility of its application increases. He never uses bleeding of any kind, and repeats the caustic once or twice a-day, according to the state of the eye. When the ulceration has taken place he applies it twice a-day, and says little else is necessary.

Ulceration of the cornea is frequently the consequence of this inflammation of the eye, and, if not arrested, leads to a destitution of the organ. The author prescribes the following treatment:

While any considerable vascularity and extreme photophoby exist, it will be proper to apply leeches immediately below the lower eyelid, or to the temple. After the inflammation has been modified, the ulcer should be touched daily, or every second day, with nitrate of silver scraped to a point, and a little oil should be afterwards dropped between the eyelids. During chemosis from conjunctival inflammation, the vessels of the cornea are strangled, and Mr. Tyrrel has discovered that radiated incisions, dividing the cornea from the centre to the sclerotic, immediately stops the ulcerating and sloughing process. Care must be taken to let the incisions of the membrane pass hetween the recti muscles to avoid the large vessels. For the cure of ulceration of the cornea and incipient pannus, M. Ammon performs the following operation with a remarkably successful result; a transverse fold is made in the upper lid, and the base of this fold is pierced by a curved needle with two threads of cotton, which form a seton. The ends of this seton are then to be fixed on the forehead by means of a piece of diachylon, the eyelid being so sufficiently raised as not to touch the globe. This suspension of the eyelids has a double influence. It acts as a seton on one hand, and on the other preserves the eye from the contact of the inner surface of the eyelid, which is often granular, and produces and continues the inflammation. There is one objection to this operation, which is, that it excites erysipelas of the lids.

Some of the other affections of the eye treated of in this connexion, are opacity, and hernia and fistula of the cornea, pustular and scrofulous ophthalmia, and corneitis. Of the latter disease the author gives an extremely satisfactory account. It is one which is often neglected, but one in which the resources of our art are very great to repair the injury. We subjoin all that Dr. Coley says on the subject:

The cornea is composed of an outer mucous membrane, lamenæ, or layers, constituting its proper, horny structure, cellular membrane connecting these laminæ and a serous membrane, which secretes the aqueous humor. Acute inflammation commences with some intolerance of light and a cloudiness in the cornea, which are followed by a pink zone surrounding it, composed of minute blood vessels. At length a pain in the forehead, like neuralgia, comes on, and the cornea

assumes a milk-white appearance. When the inflammation is confined to one portion of the cornea, there is a corresponding preponderance of the small pink vessels on its margin, as in some cases of iritis. Instead of the milky appearance, which is produced by the effusion of lymph between the laminæ, we sometimes find the cornea of a dark red color, approaching to purple, completely obscuring the iris, and becoming unnaturally prominent. This condition has appeared to me to proceed from the rupture of the congested blood vessels, and the extravasation of the blood globules destined to undergo the change, which takes place in the formation of pus. When the disease is more advanced, we find purulent matter in the place of the bloody appearance, which, when active means are employed, become absorbed: or it may burst externally, or into the anterior chamber, constituting hypopion. Inflammation of the cornea is sometimes partial, in which case some portion of the iris may be obscurely discovered. Children laboring under this disease are generally supposed to have incurable blindness, until the nature of the case is explained by some one conversant with ophthalmic surgery: for, although the inflammation is acute in the first instance, relief is seldom applied for by the poor and ignorant until temporary loss of sight has taken place. In some cases, on minute inspection, we perceive red vessels ramifying through the cornea, before vision is suspended by the deposit of lymph: and in viewing the surface of the cornea with a microscope, we perceive numerous depressions or cup-like cavities, or others presenting a glassy appearance.

Treatment.—The most active measures are required to prevent suppuration, ulceration, sloughing or mortification. The patient should be well purged, and afterwards repeatedly cupped on the temple, and be put in a mercurial course, so as to keep up a decided action on the gums until the symptoms have disappeared. These cases are tedious, but there are none in the practice of ophthalmic surgery, which terminate in so satisfactory a manner when properly treated.

Case: November 1, 1837.—Miss G., aged six years, was brought to me totally blind. I found the affection had existed two months, and was occasioned by effusion of lymph within the posterior layers of the cornea, which quite obscured the pupil in each eye. The front layers of the cornea were transparent. A slight vascularity of the cornea, but no pain was present. Leeches had in vain been repeatedly applied. I prescribed cupping on the temple, and a grain and a half of chloride of mercury once in four hours. On the sec-

a little sight was restored in the left eye. The front of the cornea projected particularly at the margin, as if the aqueous humor was too abundant. As the patient objected to the medicine in the form of powder, I prescribed four grains of pil. hydrargyri once in four hours. On the 6th, the sight in the right eye was improved, and the cornea projected in the same manner as that of the left eye. She was now directed to take ten grains of pil. hydrarg. twice a day. On the 7th the mouth became sore, and the sight improved in both eyes. From this time the lymph became rapidly absorbed, and by the repetition of pil. hydrarg. twice a day during a few weeks, the whole of the lymph disappeared, and the sight was perfectly restored.

Case: 1838.—William Head, aged twelve years, had acute inflammation in the cornea three months, accompanied with effusion of lymph, which obscured the iris and obstructed the rays of light; great intolerance of light, and a pink zone round the cornea. I directed the temple to be cupped, and the patient to take ten grains of pil. hydrarg. twice a day. On the 10th, the cupping was repeated, the pain of which he had complained being unrelieved. On the 24th, the intolerance of light was diminished, but the pain and zone round the cornea remained; the cupping was repeated; the mouth was sore. On the 1st July, the inflammation was nearly gone, and the sight almost restored; and in the course of another week every symptom of the disease disappeared.

Case: Nov. 16, 1841.—A young man, aged 18 years, had suffered with complete blindness five months, occasioned by corneitis. The effusion between the layers of the cornea was of a dark, purple color. He had intolerance of light and severe pain in the eyes. I prescribed ten grains of pil. hydrarg. twice a day. On the 26th, the mouth became sore; the front of the cornea was transparent, while the posterior part was completely obscured by a bloody effusion, which had completely interrupted the sight; the pain had entirely subsided. On the 5th of December, the lymph became straw-colored, and the sight was beginning to return; the mouth was very sore. On the 12th, the bloody and purulent appearance had left every portion of the cornea, and the intolerance of light had subsided; the pupil in one eye became now distinctly perceptible, and there was only a thin layer of lymph left in the cornea of each eye. On the 19th, the cornea became quite clear on one side of each eye, and before the end of the month all appearance of inflammation and opacity had ceased.

A variety of corneitis, of a scrofulous character, is men-

tioned by writers. All I need to observe here is, that when the disease occurs in scrofulous children it is generally secondary; the inflammation having migrated from some other structure of the eye. It is also distinguished from simple corneitis by an increased projection of the cornea, occasioned by a redundant secretion of the aqueous humor. With respect to treatment, it may require some modification. If the patient is weak and pallid, and if the mercurial treatment appears to disagree, the disulphate of quina may be substituted.

To diseases of the skin our author devotes seventy-four pages. He adheres to the classification of Willian, which he esteems more convenient than the *natural system* lately proposed by Wilson. The idea of founding these maladies on the anatomy and physiology of the skin is an ingenious one, but Dr. Coley shows that it has not been carried out.

Gangrene of the mouth was first described by a Dutch surgeon about the beginning of the seventeenth century. In Holland the disease is known by the name of *water-kanker*. The title of gangrene was given to it by Van Swieten. It has repeatedly prevailed as an epidemic in various countries, in which form we have more than once heard of it in this country. Our author quotes a writer, named Poussail, who affirms "that in the United States of America, 72 out of 240 infants were attacked with gangrene of the mouth after remittent or intermittent fevers." He does not mention where this statement is published, and we are not sure that the writer meant the remark as general. If so, it is not true. He may have witnessed the disease in an epidemic form, in which so large a proportion of children convalescing from fever suffered with gangrene of the mouth; but such result is common, nor has it been so at any time in this country. Dr. Coley gives the following account of this rare affection:

This disease is almost peculiar to infants who are feeble at birth, or children whose health has been deteriorated by a moist and unwholesome atmosphere, imperfect nutrition, or some intercurrent disease, as scarlet fever, measles, small-pox, &c. It first appears with a swelling on the cheek, the central

part of which is much harder than the circumference, and marked by a dark red spot, the skin having an appearance like wax, or as if it were oiled. The swelling, which is seated in the cellular membrane, extends to and distends the upper eyelid, and resembles œdema. At this time the patient looks pale, his breath is offensive, he has but little fever, is unhappy, and seldom complains of any pain in the cheek or mouth. An ulceration forms in the middle of the cheek, on the inside of the mouth, or on the membrane covering the gum or lip, and is covered with a putrid, grey, fetid slough of a characteristic odor. This ulcer soon assumes a purple color, and the parts mortify. The child at one time is engaged with surrounding objects, at others, lies in bed indifferent to everything, without strength or energy. He appears bloated on one side of his face, and shrunk and miserable on the other; his bloody or blackish saliva flows through his mouth, and he is constantly asking for food. which he devours with avidity, together with the putrid sloughs separated from the gangrenous parts. His intellect is clear, except during the night, when he is occasionally delirious. Some time between the third and sixth day, the most hard and prominent part of the cheek assumes a purple color, and eschar forms, which is extended from day to day, so that it ultimately occupies, the whole of one side of the face, extending even to the neck. Meantime the mucous membrane is completely destroyed down to the bones. In this state the appearance of the child is hideous; his appetite continuing voracious, he is constantly snatching the gangrenous shreds into the mouth, while he allows the offensive and blackish sanies to flow upon him from all sides. After a while his appearance becomes still more repulsive, when the eschars are partly separated and expose an opening in the cheek, through which may be seen the bare and tottering teeth, and the jaw-bones black and denuded. The morbid mass is now still more putrid and repulsive, and the child, burning with thirst, drinks with avidity, and continues to take food voraciously, although quite exhausted. He has no sickness, but has generally toward the last a troublesome purging, accompanied with rapid emaciation. His pulse becomes small and insensible, and death supervenes without a struggle.

The remote cause of this rare disease appears to consist of a degraded condition of the general health, and particularly an enfeebled state of the capillary circulation, induced by some previous inflammatory or other exhausting disease, which has reduced the constitutional vigor. Of these antecedent diseases the most frequent is measles; the next in frequency is

that cachectic state, which is found in the children of the poor, who are exposed to a humid and unhealthy atmosphere, and are deprived of proper nutriment and clothing. The feeble state in which children are left by severe attacks of any other of the eruptive fevers, equally with the condition I have just mentioned, predisposes them to inflammatory diseases, by depriving the small vessels, which circulate so freely in the cellular membrane, of their natural contractile power. Hence, when the circulation in the cellular structure, interposed between the mucous and cutaneous membranes of the upper cheek or lip, is retarded by any cause, the vessels, having lost their proper contractile force, which is designed by nature to overcome accidental interruptions, enlarge and permit the blood to remain stagnant. In proportion to the resistance thus presented to the perfect circulation in the part affected, is the excitement or vis a tergo in the surrounding capillary arteries; an inordinate activity is instinctively commenced in their vessels, for the purpose of attempting to overcome the obstruction in the morbid part; and, as the transmission of their contents is impossible through the ramifications already deprived of their vitality, or incapable of obeying the natural stimulus of the blood, the serous part of that fluid is forced through their minute extremities into the adjoining cellular membrane, which, from its increasing infiltration, becomes distended and indurated, and presents on the out-stretched skin the pale, lymphatic appearance before described as partly characteristic of the disease. When the serous membranes covering the abdominal viscera, or the heart, &c., become the seat of vascular obstruction, and inflammation follows, the excited and distended vessels relieve themselves by discharging serum or coagulable lymph from the free surfaces, while the neighboring cellular structure, with which their adherent portion is connected, comparatively escape the force and pressure of the opposite arterial excitation. Until the process of infiltration within the lip or cheek is removed by early and proper treatment, all the small vessels near the original seat of the disease become successively strangled, as it were, by the increasing compression of the serum, which they have themselves effused; and thus death and putridity extend their destructive and offensive influence.

It will be interesting to know the most approved methods of treating gangrene of the mouth. The different modes are mentioned in the annexed quotation:

A disease so rapidly fatal as gangrene of the mouth, requires the most prompt and vigorous remedies, otherwise the patient will speedily fall into an incurable state. The utility and necessity of stimulating and escharotic applications will appear, from what I have said, to have been long ago obvious to all who have had much experience with this formidable malady. The principle on which they act so beneficially, appears to me to be that of stimulating into contraction the diluted vessels surrounding the dead parts, and still possessing vitality. The consequence of this contraction is the immediate cessation of that rapid process of inflammation, which, as I have explained before, is produced and extended by defect of tone or nervous energy in the capillary circulation. In slight cases it may be sufficient to rub off, with diluted hydrochloric acid, the muguet or ash-colored slough found on the mucous membrane; but when the black spot, apparent on the outside, which from the cessation of the circulation and the death of the part, begins to increase, a crucial incision should be made through it down to the living parts, and undiluted nitric or hydrochloric acid applied by means of lint fastened to a glass rod. After making the incision, Billard advises the application of butter of antimony, or the actual cautery, which was extolled by Bacon above all other remedies. Those who have witnessed the astonishing effect of undiluted nitric acid in arresting the destructive process of sloughing phagedæna, recommended by Mr. Welbank in a paper on the subject in the "Medico-Chirurgical Transactions," will have no hesitation in adopting this bold and decided practice, which has now, with different modifications, received the sanction of experience. Should the first application of the escharotic fail, it should be repeated daily, until the sloughing process has subsided. After each operation, the only other external remedies required will be at first an evaporating bread and water poultice, until the discharge has begun to subside, and the dead parts have exfoliated, and afterwards dossils of lint, or soft linen rag, moistened with warm water, which may be continued until the mutilated parts have been cicatrised.

Little reliance must be placed on internal remedies, notwithstanding it is the belief with some writers, particularly Siebert, that it is the result of a scorbutic diathesis. Should any symptoms of land scurvy have preceded the attack, it will be necessary, in addition to nourishing diet, to prescribe some preparation of bark, with some mineral and vegetable acid. It was the opinion of Dr. Underwood that the diarrhœa, which appears towards the termination of the disease, is occasioned by the offensive matter constantly swallowed by

the patient. This symptom may be relieved by opium; and should the child recover, change of air may be found advisable.

The author has some exceedingly interesting remarks in relation to membranaceous sore throat, from which we make a few quotations. By the French the disease is termed *dyphthorite:*

It is confined to an inflammation of the pharynx, extending to the tonsils, which terminates in the formation of a false membrane. Aretæus was the earliest writer on the subject of angina gangrenosa, which he described under the titles of the Egyptian and Syriac ulcer. He divided the disease into two species, one in which the artificial membranes are small and white, and the other in which these productions were large, depressed, and exhaled a fetid smell, constituting the angina gangrenosa. About the year 1337, the latter disease appeared as an epidemic in Holland, and in other parts of Europe, and re-appeared in Spain at the commencement of the seventeenth century, and was described by Mercatus, Villareal, Nunnez, and other Spanish writes, as affecting the tonsils, extending into the air-passages, and producing death by suffocation, whence it received the name of *garotillo.* In 1818 the epidemic showed itself at Naples, where it became as fatal as in Spain, commencing its attack in the pharynx, producing dysphagia, and terminating its career by spreading to the larynx, and exciting suffocation, as if the patient had been strangled. Seventeen years after this period the disease reached Kingston, in North America, where it was more particularly confined to infants. From 1743 to 1748, this epidemic raged in Paris, according to the reports of it left us by Malouin and Chomel; and, a short time afterwards, Fothergill and Stow published accounts of an epidemic, malignant, sore throat, which prevailed in England, which was sometimes secondary, and in connexion with scarlatina, and at others primitive, and resembling, from the description of Stow, the disease under consideration. In 1671, Bard, of New York, published his sentiments on this subject, which partly corresponded with those of Bretonneau, who considered the disease to be analogous in its nature with that of croup, and the false membrane to be the product of a concretion. In proportion the real nature of this disease has been unfolded by modern medicine, it has been disarmed of much of its supposed malignancy, and brought more under the control of art. It begins

with inflammation of the mucous membrane of the soft palate, tonsils, and pharynx, terminating in the secretion of a false membrane, *without any ulceration or destruction of the true skin.* As the inflammation advances, it is apt to extend to the larynx, and to produce the symptoms and fatal results of croup. In one form of the disease, gangrene or sloughing of the inflamed parts take place, particularly in children of feeble constitution. The attack begins with a little fever, attended with a slight difficulty in swallowing. On inspecting the throat, the tonsils are perceived to be swollen, and small portions of white or yellowish lymph may be seen, resembling muguet, on different parts of the soft palate and pharynx. After a short time these deposits of lymph assume a grey color, and acquire an offensive odor; and a copious discharge of saliva flows from the corners of the mouth. At this period the cervical glands become inflamed and swollen. At length the grey lymph, constituting the false membrane, either falls off in a mass, and is ejected through the mouth, or it is separated in fragments and discharged by degrees, and is often reproduced. The appetite is little affected, and neither vomiting nor diarrhœa is present, unless the mucous coats of the stomach and bowels are the seats of the dyphtheritic production. When recovery commences, the false membranes cease to be reproduced, and the surface of the mucous membrane, by which they had been secreted, presents a red, excoriated aspect, without any degree of actual ulceration; the swelling in the cervical glands subsides; and, at the end of eight or ten days, recovery follows. In the more malignant cases, the disease extends into the air-passages, producing symptoms of laryngeal and tracheal inflammation. First hoarseness is observed; then a harsh, suffocating cough, accompanied with a croupy sound and an anxious expression, followed by a pale, cadaverous countenance, with the eyes sunk in their sockets; hurried and feeble pulse, cold skin; and terminating, when unrelieved, in irresistible stupor, a purple color of the lips, face, and extremities, and speedy death. When the bronchial tubes are visited by this disease, the cough becomes more frequent, the breathing more rapid, and accompanied with a mucous or rattling sound, and the patient sometimes expectorates shreds or tubular portions of lymph presenting a membranous appearance. This is frequently the sequel of laryngeal inflammation, and after the latter has been relieved, disappoints our hopes by a rapidly fatal termination.

Here, for want of room, we must close our notices of this excellent work.

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

Iron in Cachexia.—Iron is an agent almost exclusively employed in the treatment of cachexia, and its use has been in part recommended on the ground of the deficiency of its normal proportion in the blood. It is believed that the administration of ferruginous preparations may restore the normal quantity of the metal to this fluid, and on this ground the most soluble preparations are recommended, and, according to M. Miquel, those chiefly should be chosen which are susceptible of decomposition by the alkalis of the blood.

M. Beau doubts the correctness of this view of the direct agency of iron, although the benefit of the substance is incontestible. The iron of the blood is contained only in its globules, and there will be more or less of it as these globules prevail. To cure hydræmia, therefore, and augment the proportion of globules, it can never suffice to introduce one element of the globule only. The diminished proportion of globules is maintained by the defective condition of the digestive functions, and iron acts only by restoring these to their integrity. In fact we daily witness cases of chlorosis treated by iron in its most soluble forms without any success whatever—the digestive organs in such cases being in a condition not admitting of their benefitting by its agency. The iron is abundantly absorbed into the blood, and yet the globule is not constituted. On the other hand, when the metal acts beneficially, the earliest effect it produces is upon the digestive organs. We see other patients again recover under the use of aloes, change of air, or the removal of moral causes, &c., without ever taking iron at all, or after abandoning it as use-

less—the dyspepsia having yielded to other means after the iron had failed in relieving it. Our primary indication then must be to attack *the cause which produces the dyspepsia.*. M. Trousseau has already protested against this indiscriminate treatment of the cachexiæ by iron; and, in fact, we can only re-constitute the blood by re-establishing the digestive functions, and removing causes which operate injuriously upon them. It is not by the direct agency of this medicine, but by the greater amount of aliment it enables the digestive organs to master, that iron is useful; and cachexia induced by mere hæmorrhage may be at once removed by the rapid administration of aliment alone.—*Medico. Chir. Rev.*

Lithotomy and Lithotrity.—Until very lately, patients applying to surgeons were constantly recommended to submit to the knife, in order to get rid of stone in the bladder, whatever might be the size of the concretion, or the state of the urinary organs. On the other hand, if he fell into the hands of the professed grinder, no matter what the peculiarities of his case, he was as certain to be subjected to the boring or hammering processes. Now that the merits of both operations are better understood and appreciated—some few surgeons having thought proper to turn their attention to this matter, and study and understand lithotrity as well as lithotomy—patients have a chance of being treated judiciously and conscientiously, and of having that proceeding resorted to which is adapted to their respective cases. I was not slow to adopt the operation of crushing, have always had a favorable impression of it, and have throughout used the same language regarding it, yet I have the credit of being an opponent to lithotrity. I have all along been, and am certainly still, opposed to the abuse of any one operation, by its indiscriminate employment in all cases, and by its being practised by those alone who know no other. It can be employed safely only by those who understand well the healthy anatomy of the urethra and bladder; who are acquainted with their sympathies, vital actions, and pathological changes; and who both understand, and are in the constant habit of treating derangement of their functions. The operation of lithotrity is applicable to patients above the age of puberty, when the symptoms have not endured very long, when the foreign body i

certained to be about the size of the one sketched two pages back—measuring six or seven lines, or even more, perhaps, say a large as a chestnut;—when the bladder and urethra are in a tolerably healthy and normal condition—as indicated by the power to retain the urine comfortably for several hours, and to pass it in a tolerably free stream; and when the viscus admits of injection and a careful exploration.

The operation of lithotomy must yet continue to be performed on children, and on those of mature age who are so ill-informed or foolish as to permit the stone to attain an inordinate bulk. The concretions in young subjects are generally composed of a very dense substance, the oxalate of lime, in whole or in part; and the urethra is often so narrow as to preclude the application of instruments strong enough to reduce them to fragments. The reason for giving a preference to incision over crushing, when the stone is large, have already been given.

This favorable opinion of lithotrity was published in 1840, since when it has been confirmed and much strengthened by ample experience. Of late years, in point of fact, I have scarcely been obliged to have recourse to lithotomy at all in private practice. At the hospital, patients yet present themselves with large stones and bad bladders. Then lithotomy is both a less painful and much more safe operation, as already propounded. During the above period twenty-four patients have been cut, and all have recovered without accident; these patients have been of all ages, from two to eighty years of age, and some of them not over favorable subjects. So that, after all, there is not much to find fault with as regards this cruel and bloody 'operation' when carefully set about.

Liston's Practical Surgery.

The Cæsarian Operation considered in a Theological point of view.—Some months since a woman died in Brittany, being about six months advanced in pregnancy. The parish priest sent for a medical man to remove the child by the Cæsarian section, in order that it might be baptised, if still alive. Upon his refusing to do so, the priest sent for a *farrier* [illegible]d a dead fœtus by the Cæsarian section. These [illegible]ely commented upon in some of the newspa-

pers, the minister published a reply in justification of his proceedings, stating that they were imperative upon him, in proof of which he quoted Bouvier's *Sacred Embryology*, which is a text-book of the church. This expressly orders the section to be made as speedily as possible, under all circumstances as regards the age, time, and mode of death, &c., and in respect to the person who is to be called upon, it says:—"No endeavor must be neglected to procure the services of a professional man. If this is impossible, a midwife, some other woman, a married man, or in case of urgency any one at hand must be resorted to, but *never a priest*, unless there is absolutely no other person who can be procured." When the medical man refused, the priest read these and other passages of M. Bouvier's work to the farrier, showing him the absolute necessity of proceeding with the operation.

A medical man, before resorting to the operation, has to satisfy himself—1, That the *woman is really dead;* 2, that the *child is alive;* and 3, that it is *viable.* This restricts obviously the operation within very narrow limits. The Church regards not the *viability* of the child, but the chance of its being alive, and therefore fitted for baptism. But the chances of error and danger that this rule gives rise to are obvious. Is the practitioner to submit to the dictates of the priest, and open the woman's body the instant she has yielded her last breath. Many there are who would hesitate to do so, and if the professional man delays in order to be certain that his patient is really dead, does it seem reasonable to allow persons utterly destitute of physiological knowledge to take upon themselves not only to judge of the propriety of the operation, but even its execution? This has been so strongly felt by some of the clergy themselves, even, that various contrivances have been thought of to dispense with the necessity of the operation, and yet confer the rite of baptism upon the infant. Thus, *vagino-uterine injections* have been advised, and quite recently, these have given rise to a learned discussion in the Academy of Medicine of Belgium. The validity of such a procedure has been admitted by high authorities of the church, so that, even according to its own showing, the nenessity for the operation may be brought within very narrow limits. When, however, it is determined to practice the operation, this should be solely confided to professional men; for an apparent state of death during gestation, is of too frequent occurrence, and of too difficult detection, to allow of the interference of unskilful persons. When medical men are regularly consulted in these cases, they should bear in mind the

duties and obligations of their profession, and lend their assistance, when the rights of humanity, of which they are the natural guardians, do not oppose, to the accomplishment of the duties of religion, in the same manner as they are accustomed to do with regard to those of justice.—*Gen. Medical.*—*Med. Chir. Rev.*

M. Velpeau on Flexions and Engorgement of the Uterus.—A proof of how often the term *engorgement* has expressed an error of diagnosis is found in the fact that of late years, and in proportion to the progress of science, engorgements of the uterus become more and more rare, while the number of vicious flexions is augmented. I do not fear to state, that of fifty women reputed to have engorgement, forty five will be found upon examination to be suffering from some deviation from the normal position of the organ. How can we explain this error of diagnosis being committed by well educated practitioners? The reason is simple. The woman is examined in the recumbent posture, and the finger meets, in a certain direction of the neck, forwards if there be anteflexion, and backward if there be retroflexion, with a tumor of considerable size and sensible, which is declared to result from an engorgement. But the tumor is simply the body of the organ bent at a more or less obtuse angle, and sometimes at a right angle. We can easily assure ourselves of this, especially when, as is the case with most women who have borne children, the walls of the abdomen are neither tense nor thick. By gently depressing the hypogastrium, we may grasp the body of the womb between the two hands, and appreciate its volume as accurately as if we could see it. Engorgement is one of the least usual conditions of the organ that we meet with, and on the contrary the body of the organ is often found somewhat atrophied.

Accurate diagnosis, in consequence of the treatment it designates, is here of great importance; for when we have to do with a simple deviation we dispense with the use of means proper for resolving a tumefaction which does not exist, of debilitating remedies each more mischievous than the other, and with confining the patient for months in the recumbent posture. We order for her, moderate exercise, a substantial

and tonic regimen, antispasmodic, ferruginous drinks, saline baths, astringent vaginal injections, and lastly an abdominal bandage which may support the viscera, and prevent their weighing down the deviated organ.—*Gazette des Hopitaux.—Med. Chir. Rev.*

Mesmerism in India, and its Practical Applicatious in Surgery and Medicine. By James Esdaille, M. D., *Civil Assistant Surgeon, H. C. S., Bengal*—We have in a preceding article stated the reason why any amount of curative power which mesmerism may possess is not available to the profession; and we trust we shall not be deemed inconsistent in stating a case in which it may be resorted to, Most will acknowledge that, in certain individuals, a more or less prolonged insensibility may be induced by mesmeric procedures, and it is obvious, that the fact of this being so complete as to admit of the performance of surgical operations during its existence, and of surgeons availing themselves of such suspension of sensibility, says nothing *pro* or *con* concerning the remedial agency or the ultra pretensions of mesmerism. The same state has been induced by other means, such as injuries to the head, narcotics and intoxication, during which unfelt operations have been completed. The questions then we have to decide are whether mesmerism can induce such sufficient insensibility, and whether the patient's eventually well-doing is at all compromised by the operation being undertaken under such circumstances. Dr. Esdaille adduces seventy-three instances of painless operations of varying degrees of severity, from the introduction of a seton to amputation of an arm or the tearing of a toe-nail, performed upon subjects who could have no inducement, and scarcely intelligence enough, to enter into any plan of collusion, in the presence of very numerous witnesses. Without agreeing with the author in the general favorable estimate he gives of mesmerism, we may state that we believe the cases we have alluded to are entitled to our belief, and that the subject is one of such vast importance as to call for a searching investigation by the authorities at home. This claim of mesmerism admits of easy testing, and we repeat, if its validity is proved, that none of the various monstrous pretensions of this art will be brought in any-

wise nearer admission, while a vast boon will have been secured to suffering mankind.—*Medico. Chir. Rev.*

Insensibility during Surgical Operations produeed by Inhalation. By HENRY J. BIGELOW, M. D.—It may be interesting to know how far medical inhalation has been previously employed. Medical inhalation has been often directed to the amelioration of various pulmonary affections, with indifferent success. Instruments called *inhalers* were employed long ago by Mudge, Gardiner and Darwin, and the apparatus fitted up by Dr. Beddoss and Mr. James Watt, for respiring various gases, has given birth to some octavo volumes. More recently Sir Charles Scudamore has advocated the inhalation of iodine and conium in phthisis, and the vapor of tar has been often inhaled in the same disease. The effects of stramonium, thus administered, have been noticed by Sigmond.

The inhalation of the ethers has been recommended in various maladies, among which may be mentioned phthisis and asthma. "On sait que la respiration de l'ether sulfurique calme souvent les accidents nerveux de certains croup," is from the Dict. des Sc. Med.; but I find that mention of the inhalation of this agent is usually coupled with a caution against its abuse, grounded apparently upon two or three cases, quoted and re-quoted. Of these the first is from Brande's Journal of Science, where it is thus reported: "By imprudent respiration of sulphuric ether, a gentleman was thrown into a very lethargic state which continued from one to three hours, with occasional intermissions and great depression of spirits—the pulse being for many days so low that considerable fears were entertained for his life." Christison quotes the following from the Midland Med. and Surg. Journal, to prove that nitric ether in vapor is a dangerous poison when too freely and too long inhaled: "A druggist's maid servant was found one morning dead in bed, and death had evidently arisen from the air of her apartment having been accidentally loaded with vapor of nitric ether, from the breaking of a three gallon jar of the Spiritus Æth. Nitric. She was found lying on her side, with her arms folded across her chest, the countenance and posture composed, and the whole appearance like a person in a deep sleep. The stomach was red internally and the lungs

were gorged." The editor of the journal where this case is related, says he is acquainted with a similar instance, where a young man was found completely insensible from breathing air loaded with *sulphuric ether*, remained epileptic for some hours, and would undoubtedly have perished had he not been discovered and removed in time. Ether is now very commonly administered internally as a diffusible stimulant and antispasmodic, in a dose of one or two drachms. But here also we have the evidence of a few experiments that ether is capable of producing grave results under certain circumstances. Orfila killed a dog by confining a small quantity in the stomach by means of a ligature around the œsophagus. Jager found that ℥ ss. acted as a fatal poison on a crane. It was for a long time supposed to be injurious to the animal economy. The old Edinburg Dispensatory, republished here in 1816, explicitly states that it is to be inhaled by holding in the mouth a piece of sugar containing a few drops, and also that regular practitioners give only a few drops for a dose; "though," it adds, "empirics have sometimes ventured upon much larger quantities, and with incredible benefit." p. 566. Nevertheless, it was known to have been taken in correspondingly large doses with impunity. The chemist Bucquet, who died of scirrhus of the colon, with inflammation of the stomach and intestines, took before his death a pint of ether daily, to alleviate his excruciating pains, (he also took 100 gr. opium daily;) and Christison mentions an old gentleman who consumed for many years ℥ xvi. every eight or ten days. Such facts probably led Merat and De Lens, in their Matiere Medicale, to question its grave effects when swallowed. Mentioning the case of Bucquet, they say, even of its inhalation, that it produces only "un sentiment de frachieur que suit bientôt une legère excitation."

This variety of evidence tends to show that the knowledge of its effects, especially those of its inhalation, was of uncertain character. Anthony Todd Thompson well sums up what I conceive to have been the state of knowledge at the time upon this subject, in his London Dispensatory of 1818. "As an antispasmodic, it relieves the paroxysm of spasmodic asthma, whether it be taken into the stomach, or its vapor only be inhaled into the lungs. Much caution, however, is required in inhaling the vapor of ether, as the imprudent inspiration of it has produced lethargic and apoplectic symptoms." In his Materia Medica and Therapeutics, of 1832, however, omitting all mention of inhalation, he uses the following words: "Like other diffusible excitants, its effects are rapidly propa

gated over the system, and soon dissipated. From its volatile nature its exciting influence is probably augmented; as it produces distension of the stomach and bowels, and is thus applied to every portion of their sensitive surface. It is also probable that it is absorbed in its state of vapor, and is therefore directly applied to the nervous centres. It is the diffusible nature of the stimulus of ether which renders it so well adapted for causing sudden excitement, and producing immediate results. Its effects, however, so soon disappear, that the dose requires to be frequently repeated."

Nothing is here said of inhalation, and we may fairly infer that the process had so fallen into disrepute, or was deemed to be attended with such danger, as to render a notice of it superfluous in a work treating, in 1832, of therapeutics.

It remains briefly to describe the process of inhalation by the new method, and to state some of its effects. A small two-necked glass globe contains the prepared vapor, together with sponges to enlarge the evaporating surface. One aperture admits the air to the interior of the globe, whence, charged with vapor, it is drawn through the second into the lungs. The inspired air thus passes through the bottle, but the expiration is diverted by a valve in the mouth piece, and escaping into the apartment is thus prevented from visiting the medicated vapor. A few of the operations in dentistry, in which the preparation has as yet been chiefly applied, have come under my observation. The remarks of the patients will convey an idea of their sensations.

A boy of sixteen, of medium stature and strength, was seated in the chair. The first few inhalations occasioned a quick cough, which afterwards subsided; at the end of eight minutes the head fell back, and the arms dropped, but owing to some resistance in opening the mouth, the tooth could not be reached before he awoke. He again inhaled for two minutes, and slept three minutes, during which time the tooth, an inferior molar, was extracted. At the moment of extraction the features assumed an expression of pain, and the hand was raised. Upon coming to himself he said he had had a first-rate dream—very quiet," he said, "and had dreamed of Napoleon—had not the slightest consciousness of pain—the time had seemed long;" and he left the chair, feeling no uneasiness of any kind, and evidently in a high state of admiration. The pupils were dilated during the state of unconsciousness, and the pulse rose from 130 to 142.

A girl of 16 immediately occupied the chair. After coughing a little, she inhaled during three minutes, and fell asleep,

when a molar tooth was extracted, after which she continued to slumber tranquilly during three minutes more. At the moment when force was applied she flinched and frowned, raising her hand to her mouth, but said she had been dreaming a pleasant dream, and knew nothing of the operation.

A stout boy of 12, at the first inspiration coughed considerably, and required a good deal of encouragement to induce him to go on. At the end of three minutes from the first fair inhalation, the muscles were relaxed and the pupil dilated. During the attempt to force open the mouth he recovered his conciousness, and again inhaled during two minutes, and in the ensuing one minute two teeth were extracted, the patient seeming somewhat conscious, but upon actually awaking he declared "it was the best fun he ever saw," avowed his intention to come there again, and insisted upon having another tooth extracted upon the spot. A splinter which had been left, afforded an opportunity of complying with his wish, but the pain proved to be considerable. Pulse at first 110, during sleep 96, afterwards 144; pupils dilated.

The next patient was a healthy-looking, middle-aged woman, who inhaled the vapor for four minutes; in the course of the next two minutes a back tooth was extracted, and the patient continued smiling in her sleep for three minutes more. Pulse 120, not affected at the moment of the operation, but smaller during sleep. Upon coming to herself, she exclaimed that "it was beautiful—she dreamed of being at home—it seemed as if she had been gone a month," These cases, which occurred successively in about an hour, at the room of Dr. Morton, are fair examples of the average results produced by the inhalation of the vapor, and will convey an idea of the feelings and expressions of many of the patients subjected to the process. Dr. Morton states that in upwards of two hundred patients, similar effects have been produced. The inhalation, after the first irritation has subsided, is easy, and produces complete unconsciousness at the expiration of a period varying from two to five or six, sometimes eight minutes; its duration varying from two to five minutes, during which the patient is completely insensible to the ordinary tests of pain. The pupils of the cases I have observed have been generally dilated; but with allowance for excitement and other disturbing influences, the pulse is not affected, at least in frequency; the patient remains in a calm and tranquil slumber, and wakes with a pleasurable feeling. The manifestation of consciousness or resistance I at first ascribed to the reflex function, but I have since had cause to modify this view.

It is natural to enquire whether no accidents have attended the employment of a method so wide in its application, and so striking in its results. I have been unable to learn that any serious consequences have ensued. One or two robust patients have failed to be affected. I may mention as an early and unsuccessful case, its administration in an operation performed by Dr. Hayward, where an elderly woman was made to inhale the vapor for at least half an hour without effect. Though I was unable at the time to detect any imperfection in the process, I am inclined to believe that such existed. One woman became excited, and required to be confined to the chair. As this occurred to the same patient twice, and in no other case as far as I have been able to learn, it was evidently owing to a peculiar susceptibility. Very young subjects are affected with nausea and vomiting, and for this reason Dr. M. has refused to administer it to children. Finally, in a few cases, the patient has continued to sleep tranquilly for eight or ten minutes, and once, after a protracted inhalation, for the period of an hour.

The following case, which occurred a few days since, will illustrate the probable character of future accidents. A young man was made to inhale the vapor, while an operation of limited extent, but somewhat protracted duration, was performed by Dr. Dix upon the tissues near the eye. After a good deal of coughing the patient succeeded in inhaling the vapor. and fell asleep at the end of about ten minutes. During the succeeding two minutes the first incision was made, and the patient awoke, but unconscious of pain. Desiring to be again inebriated, the tube was placed in his mouth and retained there about twenty-five minutes, the patient being apparently half affected, but, as he subsequently stated, unconscious. Respiration was performed partly through the tube, and partly with the mouth open. Thirty-five minutes had now elapsed, when I found the pulse suddenly diminishing in force, so much so that I suggested the propriety of desisting. The pulse continued decreasing in force, and from 120 had fallen to 96. The respiration was very slow, the hands cold, and the patient insensible. Attention was now of course directed to the return of respiration and circulation. Cold affusions as directed for poisoning with alcohol, were applied to the head, the ears were syringed, and ammonia presented to the nostrils and administered internally. For fifteen minutes the symptoms remained stationary, when it was proposed to use active exercise, as in case of narcotism from opium. Being lifted to his feet, the patient soon made an effort to move his

limbs, and the pulse became more full, but again decreased in the sitting posture, and it was only after being compelled to walk during half an hour that the patient was able to lift his head. Complete consciousness returned only at the expiration of an hour. In this case the blood was flowing from the head, and rendered additional loss of blood unnecessary. Indeed the probable hemorrhage was previously relied on as salutary in its tendency.

Two recent cases serve to confirm, and one, I think, to decide the great utility of this process. On Saturday, the 7th Nov., at the Mass. General Hospital, the right leg of a young girl was amputated above the knee, by Dr. Hayward, for disease of this joint. Being made to inhale the preparation, after protesting her inability to do so from the pungency of the vapor, she became insensible in about five minutes. The last circumstance she was able to recall was the adjustment of the mouth-piece of the apparatus, after which she was unconscious until she heard some remark at the time of securing the vessels—one of the last steps of the operation. Of the incision she knew nothing, and was uhable to say, upon my asking her, whether or not the limb had been removed. She refused to answer several questions during the operation, and was evidently completely insensible to pain or other external influences. This operation was followed by another, consisting of the removal of a part of the lower jaw, by Dr. Warren. The patient was insensible to the pain of the first incision, though she recovered her consciousness in the course of a few minutes.

The character of the lethargic state, which follows this inhalation, is peculiar. The patient loses his individuality and awakes after a certain period, either entirely unconscious of what has taken place, or retaining only a faint recollection of it. Severe pain is sometimes remembered as being of a dull character; sometimes the operation is supposed by the patient to be performed on somebody else. Certain patients, whose teeth have been extracted, remember the application of the extracting instruments; yet none have been conscious of any real pain.

As before remarked, the phenomena of the lethargic state are not such as to lead the observer to infer this insensibility. Almost all patients under the dentist's hands scowl or frown; some raise the hand. The patient whose leg was amputated, uttered a cry when the sciatic nerve was divided. Many patients open the mouth, or raise themselves in the chair, upon being directed to do so. Others manifest the activity of cer-

tain intellectual faculties. An Irishman objected to the pain, that he had been promised an exemption from it. A young man taking his seat in the chair and inhaling a short time, rejected the globe, and taking from his pockets a pencil and card, wrote and added figures. Dr. M. supposing him to be affected, asked him if he would now submit to the operation, to which the young man willingly assented. A tooth was accordingly extracted, and the patient soon after recovered his senses. In none of these cases had the patients any knowledge of what had been done during their sleep.

I am, as yet, unable to generalize certain other symptoms to which I have directed attention. The pulse has been, as far as my observation extends, unaltered in frequency, though somewhat diminished in volume, but the excitement preceding an operation, has, in almost every instance, so accelerated the pulse that it has continued rapid for a length of time. The pupils are in a majority of cases dilated; yet they are in certain cases unaltered, as in the above case of amputation.

The duration of the insensibility is another important element in the process. When the apparatus is withdrawn at the moment of unconsciousness, it continues, upon the average, two or three minutes, and the patient then recovers completely or incompletely, without subsequent ill effects. In this sudden cessation of the symptoms, this vapor in the air tubes differs in its effects from the narcotics or stimulants in the stomach, and, as far as the evidence of a few experiments of Dr. Morton goes, from the ethereal solution of opium when breathed. Lassitude, headache and other symptoms lasted for several hours, when this agent was employed.

But if the respiration of the vapor be prolonged much beyond the first period, the symptoms are more permanent in their character. In one of the first cases, that of the young boy, the inhalation was continued during the greater part of ten minutes, and the subsequent narcotism and drowsiness lasted more than an hour. In a case alluded to before, the narcotism was complete; during more than twenty minutes, the insensibility approached to coma.

Such cases resemble those before quoted from Christison and other authors, and show that the cessation of the inhalation, after it has been prolonged for a length of time, does not produce a corresponding cessation of the symptoms; while, if the inhalation is brief, the insensibility ceases in a short time. Recovery, in the latter case, is not improbably due to the complete and rapid elimination of the vapor from the lungs; the

more gradual return of consciousness, in the former case, to the presence of a larger quantity of unexhaled particles. A fact mentioned by Christison bears upon this point. This author states that insensibility from the presence of a large quantity of alcohol in the stomach, often gives place to a complete and sudden return of consciousness, when the alcohol is removed by the stomach pump. It is probable that the vapor of the new preparation ceases early to act upon the system, from the facility with which it is exhaled.

The process is obviously adapted to operations which are brief in their duration, whatever be their severity. Of these, the two most striking are, perhaps, amputations and extraction of teeth. In protracted dissections, the pain of the first incision alone is of sufficient importance to induce its use; and it may hereafter prove safe to administer it for a length of time, and to produce a narcotism of an hour's duration. It is not unlikely to be applicable in cases requiring a suspension of muscular action; such as the reduction of dislocations or of strangulated hernia: and finally it may be employed in the alleviation of functional pain, of muscular spasm, as in cramp and colic, and as a sedative or narcotic.

The application of the process to the performance of surgical operations, is, it will be conceded, new. If it can be shown to have been occasionally resorted to before, it was only an ignorance of its universal application and immense practical utility that prevented such isolated facts from being generalized.—*Boston Med. Jour.*

Case af Concealed Delivery. By S. C. Sewell, M. D.—On the 16th of November, 1845, at a quarter past 1, P. M., I was called to Mr. K.'s to see his servant Bridget Cloone, æt. 40, who was said to be suffering from colic and pain in the back. Laying my hand on the abdomen, I perceived that she was about seven or eight months pregnant. On my charging her with the fact, she denied it stoutly, said she had menstruated two months before, and finally, finding that she made no impression on my opinion, she declared, in the most solemn manner, "that whatever was inside of her, it was no child." The reason for this statement will appear presently. I had her removvd to the University Lying-in Hospital, whither I

went in an hour after, and finding that the physician in ordinary had not arrived, at the matron's request I examined her *per vaginam*, and found the os uteri dilated and the membranes protruding; presently I detected what appeared to be a cord lying coiled in the upper part of the vagina, and on pulling at it a free extremity came down, but not the os externum. There were no clots of blood in the vagina. At half past five I returned, and found Dr. McCulloch in attendance; the child just being born by the feet, and the woman still persisting that there was no child. The child was feeble, but not at all exsanguined. It survived a few hours. To the placenta were attached two cords; that of the first child had evidently been divided with scissors, from the appearance of the cut surface. Information was given at the police office, that a new-born child had been concealed, for the woman denied that any previous birth had taken place. On searching the bed-room she had occupied at her master's house, the bed bore evident marks of a delivery having taken place, and on searching her trunk the body of a male child was found, underneath the clothes, which had been very carefully smoothed over it. Care was taken not to disturb the position of the limbs, and the body was removed to the Police Station House.

An inquest was held on the following day, when Dr. McCulloch and I were directed to perform the autopsy, of which the following is the result:—The body was fifteen inches long, and weighed two pounds fifteen ounces avoirdupois. The body was not exsanguined; there was no fracture of the skull; the conjunctiva was intensely injected; the cornea hazy and pupil open.

The body was found on its right side in the box, and was deposited on the same side in the station house; in consequence, livid patches were observed on that side from the gravitation of the blood.

External Examination.—Several marks of injury were found as follows:—One from the right nipple to the point of the shoulder, half an inch broad; one from the right side of the hyoid bone to mastoid process of right temporal bone; one a little lower, and to the outside, which terminated at the back of the neck; the fourth commencing to the outside again, went to the middle of the superior costa of the scapula; the hands were turned up to the head, the right one to the right ear. The nails were formed, The umbilical cord had been divided nine inches from the body, evidently with scissors, and there was no ligature on it. Meconium was protruding

from the anus; the testicles had descended; the thighs were flexed on the abdomen, and the legs on the thighs.

Internal Examination.—The marks of injury before referred to were cut into, and the cellular tissue underneath was found to be red with extravasated blood. An incision was made through the lower lip, and down to the epigastrium, in the mesial line. On dividing the lower lip, the tongue was found protruded more than a line beyond the gums. On opening the thorax, the following observations were made:—The apex of the diaphragm was opposite the fifth rib; the lateral portions were well descended; the lungs were of a uniform bright scarlet color, occupying the lateral portions of the thorax, and touching the diaphragm below, but not filling the pleural cavities entirely. The heart and great vessels were nearly in the mesial line, and the cavity of the entire thorax was large for the size of the child; the lungs crepitated on pressure; the lungs, heart, and thymus gland were then removed, and, on being put into water, floated; crepitation occurred under the scalpel; a portion of the lung was squeezed under water, and bubbles issued from every part of the cut surface; the same was observed on squeezing a portion in air; nearly half of each lung was removed, and the remainder, with the heart and thymus still attached, was cast into water, when the mass again floated; portions of the lung floated in water, the cavities of the heart contained dark blood, slightly coagulated; foramen ovale was closed, but not obliterated.

Inferences.—1st. The child had breathed freely.

2d. The marks of injury on the right breast and neck were inflicted during life.

3d. They were in all probability occasioned by the left hand of an adult grasping the neck of the infant.

4th. The protrusion of the tongue, and position of the hands, are, probably, referable to strangulation.

5th. Death was not caused by hemorrhage from the cord.

6th, The child was between seven and eight months of utero-gestation,

The rest of the evidence went to show that Bridget Cloone had been a widow for some years; that she had carefully concealed her pregnancy; that she had taken powerful emmenagogue medicines, prescribed by an irregular practitioner, up to the day of delivery, and that she was seen, half an hour before my arrival, to get out of bed, stand by its side, take a pair of scissors from under the pillow, and cut something under the bedclothes.

The coroner's jury brought in a verdict of "wilful mur-

der." The bill of indictment founded thereon was thrown out by the Grand Jury. She was then indicted for concealing the birth of an illegitimate child, convicted, and sentenced to six month's imprisonment.

The above is an exceedingly important case in the annals of medical jurisprudence; and cases of the kind are very rare. Under the hope of escaping from the consequences incident to an actual infanticide, of which there is the strongest probability, this woman persisted *to the last that she was not pregnant*, little anticipating that a second child was to furnish its quota of evidence of the birth of a former one a few hours previously. The case furnishes a striking proof of the fact, that a woman may be delivered of one child, of which she may criminally dispose, for the purpose of concealing its birth, and may afterwards be delivered of a second, the life of which may be preserved.—*British Am. Jour. Med.*

Treatment of Varicose Veins. By F. C. Skey, Esq., F. R. S.—Mr. Skey observes that, the practice that he recommends in cases of varicose veins, has been successful in his hands for many years; it consists in the entire obliteration of the trunks and many of the branches of the saphena veins. both major and minor, by very small caustic issues, applied on the projecting veins, however large or numerous they may be; and in suggesting which, I believe I can pledge myself to two conditions; first, that the function of the vein on which the issue is made, is from that hour suspended; and second, that the operation of the issue so applied is unattended with danger of any kind. The operation appears to be complete, and immediate. The current of blood is arrested; nor is the obstruction to the circulation thus caused, apparent in any symptom of congestion resulting from it.

The material I employ for this purpose, is the Vienna paste, a compound of quick lime and caustic potash, in the proportion of five of the former to four of the latter. These ingredients are mixed into a paste with spirits of wine; and in these proportions which I cannot pronounce to be strictly those of the "Pate de Vienne," a caustic may be applied, which will readily destroy the surface without causing the excessive pain attending the application of the pure potash.

alone, nitric acid, or other similar agents. Under some circumstances it may be desirable to diminish the proportion of the caustic. The limb should be examined in the upright position of the body; the projecting veins marked with ink to the number requisite, including all the most salient points in the trunk and branches.

While in the horizontal posture the places thus marked, should be insulated with a circle of plaster of three or four thicknesses, the diameter of which will vary with that of the swelling beneath, but it is very desirable on all accounts to make it as small as possible. I have found one-quarter to one-third of an inch to suffice in the plaster, and the issue itself, will not exceed the size of a fourpenny piece or less.

The caustic may be removed at the expiration of half an hour, and the leg dressed and rolled lightly. In the course of a week or ten days the eschars come away, and the wounds are healed by ordinary means.—*London Med. Gaz.—South. Jour. Med.*

On the Ectrotic or Abortive Treatment of Gonorrhœa.—The employment of nitrate of silver in the early stages of gonorrhœa will, I also believe, prove highly serviceable, due regard being paid to the selection of cases in which trial of it is to be made. I have observed its operation on four occasions of distinct and undoubted clap, upon all of which the success attending its use was perfect. One of these was a first attack, open to objection on the ground of error in diagnosis, but so well marked in circumstantial evidence, as well as symptoms, as scarcely to be mistaken; two others were second attacks, thus less liable to fallacy; and the remaining one a fifth attack, in which, (to use the expressive language of the patient himself, "an old stager," in allusion to the existing ardor urinæ) "the red hot fish hooks were come." Nevertheless the complaint was as satisfactorily arrested in the last as in any of the previous cases, by the use of one injection only, although the patient admitted, that in no former attack, had the disease lasted upon him less than three months, notwithstanding the most assiduous attention to all the directions of a skilful medical man.

The mode of employing the remedy is simple. An injection composed of twelve grains of the salt to the ounce of

water, is the proper strength to use. About a couple of drachms of this, by means of an ivory (or, for obvious chemical reasons, what is better, a glass) syringe, is to be thrown into the urethra, the penis being at the same time elevated and compressed at about two inches from the orifice, thus ensuring complete application of the solution to the urethral membrane within this range, and no further. The nozzle of the syringe being withdrawn, the orifice of the urethra is to be occluded, and the solution kept in contact with the mucous membrane for the space of not less than half a minute. No urine is to be passed for half an hour after the injection, and the penis is to be kept suspended. The immediate visible effect of the remedy is to form a coagulated film on the surface of the urethral lining; and this, undoubtedly, is a main agent in effecting the cure, by the protection it affords to the delicate and abnormally sensitive membrane during urinary evacuation. That it has this effect is evinced by the great diminution of pain which the patient at once experiences during micturition. But as to its *modus operandi*, we have also to consider its sedative action in subduing crescent inflammation, and its probable quality in neutralizing specific virus, and arresting zymotic increase.

The observance of rest and antiphlogistic regimen would, in all probability, aid the therapeutic influence of this mode of treatment; its beneficial effect is, however, developed under an ordinary mode of life, when attended with no flagrant violation of conduct.

As a method of cure, it is in my opinion open to but one objection, namely, its limited adoption, owing to its applicability extending no further than the early stages of the disease, and these often exciting but little attention. Let it not, however, be disregarded on this account; for, undeniably, many cases of clap present themselves while within the power of the remedy; and for these let it be reserved and had recourse to as a means easy of application and effectual in operation; while those cases beyond its influence may, as heretofore, be set aside, to be dealt with after another more expedient mode.

Failing, however, in ectrosis, the case is in a position no more unfavorable than if its cure had not been attempted; the ulterior effects and complications of the disease are likely to be in no degree more imminent or grave.—*London Lancet.*

STATISTICS.

Deaths in Charleston during the Months of July and August, 1846.

July.—Deaths 50. (Adults, 24; children 26.) By cancer, 1; cholera infantum, 1; consumption, 6; convulsions, 3; croup, 1; debility, 1; diarrhœa, 7; dropsy, 3; dropsy of chest, 1; drowned, 3; dysentery, 1; fever catarrhal, 1; fever congestive, 1; fever country, 1; fever scarlet, 1; hypertrophy of the heart, 1; intemperance, 1; old age, 3; pneumonia, 1; teething, 8; trismus nascentium, 2; ulceration of pylorus, 1; unknown, 1.

August.—Deaths 56. (Adults, 30; children, 26.) By bronchitis, 1; cerebritis, 1; cholera infantum, 3; consumption, 8; convulsions, 4; croup, 1; debility, 2; diarrhœa, 3; dropsy, 4; fever country, 1; fever scarlet, 2; fever typhus, 1; gangrene, 1; gastritis, 1; hemorrhage, 1; hepatitis, 1; hooping cough, 1; hydrocephalus, 1; marasmus, 1; old age, 6; sore throat, 1; teething, 5; tetanus, 2; trismus nascentium, 2; unknown, 2.

Statistics of the Losses Armies Sustain.

(Dub. Quart. Journ., August, 1846, p. 164.)—Among the 80,000 men forming the French army in Algeria, in 1842, the deaths were 69 in 1,000 effective men; and 60, in 1843.

In 1840	there	was	1	death	in 6	patients.
" 1841	"	"	1	"	" 9	"
" 1842	"	"	1	"	13	"
" 1843	"	"	1	"	23	"
" 1844	"	"	1	"	32	"

This shows that a marked improvement in the sanitory condition of the French colony has taken place.

Comparison between Deaths by Disease and in Battle.

The French army destined for Egypt, from the time of its departure from France, to the end of the year 1804, lost as follows:

Killed in battle,	3614	Killed by accidents,	290
Died from wounds,	854	Died from disease,	4,157
		Total,	8,915

In the French expedition to the Morea, among 17,000men, during seven months, from 1st Sept. 1828, to 1st April 1829.

840 men died by disease alone, which would give an annual proportion of 84.6 in 1,000.

In the official documents of the British army, published by the Inspector General H. Marshall, the losses of the British army in Spain, for a period of 41 months, from January 1811 to May 1814, in a force of 61,511, were 24,930 deaths by disease, and 8,889 in battle, being for the former 118.6 in 1,000, and for the latter 42.4. Soldiers absent from their corps on account of disease 225 in 1,000, reducing the army to one-fourth of its effective strength; 66 officers were killed in every 1,000 in battle, and 37 died by disease.

In the four battles of Talavera, Salamanca, Vittoria and Waterloo, there were 39 officers killed in each 1,000, and of soldiers and non-commissioned officers 31.1, in the same number. In the British navy from June 1780 to April 1783, the deaths from various diseases were 3,230; killed, 640; and died of wounds, 500. Thus showing, that in the navy as well as in the army, the deaths by *disease* greatly exceed those by *warfare.*

Midwifery Statistics.

(Lond. Lancet, Aug. 1846, p. 191.)—A reviewer in the March number of the Archives Generales, gives the following general results of midwifery statistical tables recently published in the Italian and English Journals. In 47,116 labors, twins occurred 446 times (9 4-10 per thousand) and triplets four times (1 in 10,000.) There were 40,233 head presentations, (969 per thousand) of which 40.046 were vertex, and 187 face. There were 1,065 breech or footing presentations, (27 per thousand) and 154 transverse ones (4 per thousand)—of these labors 46,632 terminated naturally (989 per thousand) and 484 (11 per thousand) artificially, viz: 221 by means of forceps; 89 by craniotomy; 54 by turning, and 20 by vaginal or uterine hysteriotomy.—*South Med. Jour.*

Two Cases of Double Vagina. By Professor Meigs.—On the — October, 1846, I was called to Mrs. ———, aged 20 years, in labor of her first child. She is a remarkably well formed and comely wowan.

The pains were sharp and frequent, evidently of the kind

called dolores præparantes, or grinding pains. After some time, as they had become more violent, I examined the state of the os uteri, which was of the size of a half-dollar, the head of the child presenting, and the ovum unruptured. In the course of an hour more, I examined again, and the os uteri was then nearly dilated. While pressing the palp of my index finger to the left side of the pelvis, it caught in a seeming bridle, which at the instant made me fear the cervix uteri had been broken, so as to detach a semi-circular portion of the os uteri, for the pains had been exceeding sharp, and their returns had been announced by violent cries. It was but a moment that I indulged the idea of a rupture of the cervix, for upon pushing the index farther, and flexing the finger, I found I could draw the point of it outwards, pulling along with it the bridle in question. Still I did not understand the case until, having withdrawn the indicator, I examined with it the structure of the external parts, and then learned that the lady was possessed of a double vagina. Supposing that such a revelation would not be agreeable to her, I kept my own counsel, hoping that the child's head would come down through the right or the left channel without injuring the septum. But after the head escaped from the circle of the os uteri, the bridle or partition would not go definitely to the right or to the left, although I thrust it first one way and then the other. The tie was so strong that the fleshy septum extending from the anterior to the posterior columna of the vagina would not admit of the dilatation of the lower or outer third of the tube. And as the lady was very strong, and had powerful uterine pains, I began to perceive some danger of the vagina being ruptured by the vain efforts for expulsion.

I now explained to the monthly nurse, and to a relative of my patient, the cause of the delay, and the necessity that had arisen. I therefore procured the requisite permission to expose the parts to an inspection. Upon this, the two orifices of the vagina were seen to be exactly alike, and the partition stretched across the head from front to rear of the passage, which by it was wholly prevented from dilating.

I now, with a strong scissors, divided the wall by a single stroke of the instrument, whereupon the child's head advanced, dilated the os magnum, and was speedily delivered with safety to both the mother and her infant. She never complained afterwards relative to the operation, and within a month I met her on foot in the streets.

A week later I was called to a lady in her 30th year, in labor of her first child. Upon examining the state of the os

uteri, I found the circle not much bigger than a quarter dollar, with thin margin, and within it the penis of the child; the scrotum being detected within the os uteri after the pain ceased. As it was night, I went to another apartment and slept an hour, when being called, I found the os uteri very much dilated, and a buttock, near which was the right foot, presenting

While inquiring into the state of the cervix, I hooked my finger into a bridle, just as I had done in the case above mentioned, and I confess that the same thought was obvious to me, viz: that she had broken off a half ring of the circle of the os uteri, but I immediately afterwards discovered that I had another case of double vagina under management. In this case the partition was very firm and thick, extending from the os magnum almost up to the os tincæ. I inspected the external structures, and the two vaginas were each perfect and alike, included within labia pudendi common to both.

I was glad to find that only one foot of the child would come down, being fearful that if both should descend, I might not readily prevent one from entering the right and the other the left vagina.

I now disengaged the right foot and brought it down the right channel, the left leg was flexed upon the belly and thorax of the fœtus. With a little assistance the foot was delivered and the buttock of the child coming downwards, thrust the vaginal wall to the left, and so the trunk was delivered. I had great difficulty to extricate the head of the child, which remained long in the vagina; the infant breathing from time to time the air that I admitted through the hollow of my hand and fingers to its mouth and nostrils. The child, a male, was alive and in good health; the mother is quite well recovered.

Some years ago I was called by the late venerable Dr. Ruan to consultation upon a case of double vagina in a primiparous woman. I delivered the child, with the forceps, through the right canal, without difficulty or any injury, and had some five weeks later an inspection of the parts, which, as I remember, were very similar to those described in my second case above.—*Med. Examiner.*

Alleged Cure for Croup.—In the American Water-Cure Advocate, a leading column is headed thus:—"Important Dis-

covery to Parents."—which goes on to relate that Dr. Wigand, of Boston, has published a work, in which a discovery is announced that he cures the croup by cold water, exclusively. After a patient examination of the printed catalogue of Boston Physicians, and the Directory for 1846, the name of Wigand has not been found. Yet this name is passed round the ring in the country, for authority in a particular line of practice. If a book has actually been written by this celebrated croup curer, it has made no sensation here, however much it may have moved the waters in Ohio. The locality of the author may be in the neighborhood, perhaps, of the *Mesmeric College*, that was gravely asserted, last season, by distant newspapers, to have been organized in *Billerica street!* of which the wonderful and very surprising Dr. Dodd was both president and professor. This same Water-Cure Advocate speaks in raptures of the Green Mountain Spring, by D. Mack, as an ably conducted journal—which is certainly a discovery, since he is the only person who can speak thus and keep his countenance.—*Boston Med. and Surg. Jour.*

Combination of Carbonate of Iron with Sulphate of Quinine in Remittent Fever.—Prof. Lippich, of Padua, recommends the addition of the carbonate of iron to the sulphate of quinine in the treatment of periodical fevers. The following is his formula: ℞. Carbonate of iron, one gramme; sulphate of quinine, one gramme; extract of taraxacum, q. s. To be made into a mass of proper consistency, and divided into thirty pills, two of which are to be taken every two hours. The carbonate of iron may be gradually increased to two grammes.—*Ibid.*

Medical Students in France and the United States.—In the United States, with a population of 20,000,000 of people, there are about thirty medical schools, and an average annual number of 4,500 students, 1,300 of whom are yearly graduated. In France, with a population of 35,000,000, there are but three medical schools, which graduate only about 700 annually.—*Dr. Stillé's Address.*

THE

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LOUISVILLE, JANUARY 1, 1847.

FOREIGN CORRESPONDENCE.

The following letter from our Foreign Correspondent ought to have reached us a fortnight before it came to hand, in which case it would have been appended to the one which appears in another part of this number. His descriptions of the eminent men of Paris will be read with interest. We have already received from him a letter of a more professional character, which will appear in our next number.

Paris, Oct. 22d, 1846.

Gentlemen: In Paris there is at this time a young physician from Massachusetts, diligently engaged in the study of *Veterinary Surgery*, with reference to delivering lectures on that subject when he returns home. He has the appearance of being an intelligent, gentlemanly, studious young man, but I fear that he will not be rewarded for his labor. We are hardly yet sufficiently advanced in civilization to appreciate acquirements in that truly interesting branch of science. A "horse doctor" in the United States is one thing; a ve-

terinary surgeon in France is quite another thing. I do not pretend to affirm that our horse doctors are more ignorant and illiterate than the common tribe of empirics; but the Paris veterinary surgeon has a rank among scientific men, and his profession is esteemed a dignified and honorable one; nor can any one who regards the true position of the horse in the scale of being, and considers our dependence upon that noble animal wish to see it otherwise. The distinguished London surgeon, Mr. Liston, during a visit which he paid not long since to Paris, was more interested in the veterinary hospital and school than in the hospitals and schools for our own species. In a future communication I shall have something to say of this institution.

I have just had the pleasure of seeing the renowned astronomer, Le Verrier, who, as I mentioned in a former letter, is only thirty-one years of age. He is about the middle stature, with fair complexion, light hair, and a mild, benevolent expression of face bordering on tameness. He would strike four out of every five Americans as some country schoolmaster. You have already seen, no doubt, that a Mr. Adams, of Cambridge, England, disputes with Le Verrier the honor of the discovery which has so suddenly rendered him famous. The English astronomers are resolved that the new planet shall not be named after the French discoverer. To the world at large the naming of a star is a matter of small moment, and the animated controversy to which it has given rise, however exciting to astronomers, is dull enough to most readers. One of my friends here, who feels an intense concern as to who shall bear the palm, predicts that England is bound eventually to add this gem also to the diadem with which Newton and Herschel have encircled her brow.

M. Arago, so eminent as a mathematician, I have also seen at the Academy of Sciences. He is advancing in years, and his head is quite gray; his height is six feet two inches, and his appearance very fine. His features, which are strongly marked, are rather indicative of energy and force of character, than of that excelling intellect which has placed him foremost among the members of the French Academy. His eyebrows are absolutely immense, and hang like thunder clouds over his large mild eyes.

The name of Regnault is familiar to all who have watched the recent progress of physical science. He is, I presume, the youngest member of the Academy, and certainly is the most ordinary looking.

He is a small young man, of fair complexion and light hair, with nothing noticeable in his face, person or manner. The only thing with which you would be struck on learning that he was the acute and profound philosopher whose researches have already given him a name in all lands where science is cultivated, is the real "soap-lock" cut and length of his hair. When I looked at him and thought of his great attainments, I was forcibly reminded of the lines:

> "'Tis not the front or visage of a man
> That marks his merit."

He read a long and elaborate paper to the Academy the evening I saw him, on the compressibility of elastic fluids, which was much complimented by the members, but upon me the greater portion of it was lost, owing to the rapidity with which he hurried through his essay. At a late meeting of the Academy of Sciences I saw the chemists Thenard and Chevreul, and had the satisfaction of hearing a paper read by the latter on *chemical reaction.* Chevreul is about five feet eleven inches high, fifty or fifty-five years of age, with long, uncombed gray hair, small head inclining to be pointed, prominent thin nose, and black, deeply sunken eyes, which are never at rest. In manner, while reading, he is earnest and rapid, sawing up and down from his table to the back of his chair, and gives one the idea of a restless, eccentric man. Thenard is large, between fifty and sixty years old, of florid complexion, large head, curly hair, small nose, wide face, black eyes, prominent cheek bones, and a stern expression of countenance. He sits with his chin upon his breast, apparently absorbed in thought, but when he rises to speak his manner is pleasing and impressive.

One of the greatest men, physically, with whom you will meet in Paris, and also a great man, intellectually, is Rayer, one of the physicians to La Charité, whose name is known to the profession in our country. He is an immense man, forty-five or fifty years old; two hundred and twenty pounds would hardly pull him down. He has a fine face, with black, excessively long hair, and straight as an Indian's, black eyes, and a mouth which, though small, is expressive of pride and determination.

Dr. Desmarres has a small private class, of which I am a member, to which he lectures on diseases of the eye, three months, and for this course receives from each pupil no more than ten francs. He

has in the press and will shortly publish a treatise on those diseases, of which I will avail myself of the earliest opportunity to give you some account, for, from my knowledge of the author, I am persuaded that it will be a work of merit. He is still a young man, of good size, and rather good appearance, notwithstanding a pug nose. His face is exceedingly animated and expressive while lecturing, and I regard him as one of the best teachers with whom I have met. With the patients before his class, his remarks, and the black-board, upon which he nearly every day makes drawings explanatory of his subjects, his course is very clear, interesting and valuable. He has five *cliniques* a week, of two hours' each; the number of patients daily present is from thirty-five to forty; his method of instruction is to assign, almost every day, a patient to each student who diagnosticates and prescribes; after which Desmarres corrects, if the prescription or diagnosis requires it, and concludes by making some remarks on the nature and treatment of the disease. After the student has made sufficient progress, he is entrusted with the knife in cases demanding an operation. To-day a case was submitted to me for diagnosis and prescription. In the first I was successful, but my treatment did not please the doctor, and so he ordered a different course. But "doctors," you know, "*will* differ." I cannot conceive of a better school for studying affections of the eye than the cliniques of Dr. Desmarres.

D. W. Y.

XYLOIDINE, OR GUN-COTTON.

This article is at present exciting the attention of the whole scientific world. As mentioned by our correspondent from Paris, it is prepared by subjecting cotton, for a short time, to the action of concentrated nitric acid. That prepared by distilling ten parts of dry nitrate of potash with six parts of sulphuric acid, and having the specific gravity of 1.4, is found to be the best; it is preferable to the strongest nitric acid, which has a specific gravity of 1.52. The cotton is to be steeped in this acid for two or three minutes, and afterwards washed in water until litmus is no longer reddened by the water. It may also be made by immersing cotton for two hours in a mixture of the nitric and sulphuric acids of commerce, but thus pre-

pared it is said to be more liable to spontaneous combustion than when made by the other process.

The gun-cotton burns suddenly with a bright yellow flame, kindling at a temperature of 420°, and may be ignited by the electricity of a Leyden jar, percussion on an anvil, or the ordinary methods of inflaming gunpowder. It is resolved entirely into nitrogen and carbonic acid gases, and consequently leaves no solid matter behind. The suddenness with which it is deflagrated is evinced by the circumstance, that it may be burnt upon gunpowder without kindling it, as is the case with hydrogen and the fulminating compounds of mercury and silver. Its expulsive force appears to be greater than that of gunpowder, but whether it will ever take the place of that agent must depend upon a variety of circumstances. Notwithstanding the simplicity of the process by which it is prepared, it is said that it will be more expensive than gunpowder. Another objection urged against it, we know not with what truth, is, that the chemical action does not cease with the drying of the cotton, but that changes continue to go on by which its quality is gradually impaired. It only explodes with force when perfectly dry, and as cotton attracts the moisture of the atmosphere with much energy, it is difficult to avoid some degree of humidity. It is also objected to it, that it sometimes inflames spontaneously in drying, and that, consequently, it would not be safe to keep a quantity of it together; that it is subject to being ignited by a heated gun, or by driving the ram rod home incautiously, and that it is more apt than gunpowder to burst the gun, owing to the suddenness of its explosion. Experience alone can determine the force of these objections, and fix the utility of the article.

Of Germany it has been sung:

> "Mars owes to thee his thunder
> That shakes the battle field;"

and to her discoveries of the clock, the printing press, and gunpowder, the world generally has consented to allow her to add that of gun-cotton; but from some recent notices on the subject we see that France is preferring a claim to the honor of the discovery. Pelouze, in some experiments with nitric acid on the woody fibre, performed several years ago, ascertained that the qualities of the substance, whether paper, linen, or saw dust, were materially altered. This new principle, termed *xyloidine*, (from *xulon* wood, and *eidos* like),

was found to burn rapidly, and often with explosive violence. The works of Turner and Graham on chemistry, published in 1842, allude to this effect of nitric acid on the ligneous fibre. Turner says, "In strong nitric acid saw dust dissolves; and on the addition of water, a white insoluble powder is deposited, which contains nitric acid, and explodes when heated," Graham is still more explicit in the subjoined extract:—"Nitric acid, in its highest state of concentration, exerts no violent action upon certain organic substances, such as lignin or woody fibre and starch, for a short time, but unites with them, and forms singular compounds. A proper acid for such experiments is procured with most certainty by distilling 100 parts of nitric acid with no more than 60 parts of the strongest oil of vitriol. If paper is soaked for one minute in such an acid, and afterwards washed with water, it is found to shrivel up a little, and become nearly as tough as parchment, and, when dried, to be remarkably inflammable, catching fire at so low a temperature as 356°, and burning without any nitrous odor, (Pelouze)." Am. Ed. p. 219.

Dumas, in his Traité de Chimie, mentions that these properties suggested to Pelouze the idea of employing paper or cloth, so treated, in the manufacture of cartridges for artillery; and he even went so far, at a late meeting of the Academy of Sciences, in Paris, as to assert that his countryman announced the plan of applying these substances to the very purpose for which Schönbein has taken out a patent. Whether or not the German chemist was acquainted with the researches of his neighbor, Pelouze, it appears clear to us, was the real inventor of the process for preparing the explosive cotton.

INTRODUCTORY LECTURES.

Our thirty medical schools are now in full oparation, and, probably, since the first of November, twice thirty introductory lectures have been published. We have received three of these annuals, which would do credit to any teachers in any medical school. The one which we received first, is from the pen of Professor Caldwell, who, at his advanced age, is toiling on in his profession with all the ardor and earnestness which characterized him when he came to Kentucky nearly thirty years ago. His lecture is divided between advice

to his pupils, and a eulogy on the Medical Institute. The former is seasonable and judicious, and the latter, we have no doubt, was sincere. If any of his readers should deem it overstrained, they must remember that the Medical Institute was the child of the author's old age. He had some cause to feel enthusiastic, in view of what that school was, and what he had done in rearing and sustaining it.

The other two lectures are from Philadelphia—one delivered by Professor Hodge, the other by Professor Jackson, of the University of Pennsylvania. Dr. Hodge discourses of obstetrics, the department assigned to him in the University. It is a very appropriate and a very instructive address.

Dr. Jackson's lecture is admirable in matter and manner; its sentiments are elevated, and they are conveyed in a style at once polished and forcible. He speaks of the dignity, aim, tendencies, and dangers of the medical profession, of which we may say, as good old Isaac Walton said of his favorite sport:

> Doubt not, scholar, but that angling is an art, and an art worth your learning; the question is rather whether you be capable of learning it? for angling is like poetry, men are to be born so: I mean with inclinations to it, though both may be heightened by discourse and practice; but he that hopes to be a good angler, must not only have an inquiring, searching, observing wit; but he must bring a large share of hope and patience, and a love and propensity to the art itself.

How the overflowing tide of quackery is to be resisted, Dr. Jackson indicates in the following paragraph:

> Amidst the general decadence that threatens the medical profession, and disrepute overshadowing medical honors, it will be incumbent on the schools of highest reputation, that they should maintain a firm ground. Let them urge on the cultivation of medicine to its highest point as a science, by full and adequate courses. Let them convince the students that it is not for their interests that medicine should be slightingly taught, light as a school boy's task, but must be labored out by application and hard study, through scientific and philosophical instruction. Let them stand firm to their diplomas, and refuse them to the incompetent, and when not fairly earned after a close scrutiny.

FACTS FROM CORRESPONDENTS.

TINCTURE OF MURIATE OF IRON IN GONNORRHŒA.

Dr. Osborne, of Erie, Alabama, informs us that he has continued to use the tincture of the muriate of iron beneficially in leucorrhœa, and that he has extended its application to some cases of gleet, and one of gonorrhœa, with success. The latter disease yielded to it almost immediately, as it is said to do to the nitrate of silver, the mode of applying which is noticed in another department of this number. Dr. Osborne uses the tincture of iron according to the following formula:

R. Tinct. mur. iron gtt. 10
Cold water ℥ ss.

Mix and inject with a syringe. In gonorrhœa he prescribes 15 drops of the tincture to the half ounce of water, to be employed as an injection three times daily.

TINCTURE OF IODINE IN DROPSY.

The same correspondent, in a letter dated 30th November, mentions a case of ascites, resulting from peritonitis, in which he employed the tincture of iodine successfully, after the ordinary remedies for dropsy had been tried in vain, and the disease had progressed so far as to render tapping necessary. He promises a full report of the case. He does not state how he used the iodine—externally, however, we presume.

FRACTURE OF THE SKULL; LOSS OF A PORTION OF THE BRAIN; RECOVERY.

The particulars of this interesting case have been communicated to us by Dr. Greenley, of Westpoint, Ky., but his letter reached us after the matter of this number was made up. It will appear in our February number.

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FEBRUARY, 1847.

ART. I.—*Notes on Medical Matters and Medical Men in Paris.* By DAVID W. YANDELL, M.D., of Louisville, Ky.

Of the living chemists of France the names which would occur first to an American, are those of M.M. Orfila and Dumas, the latter distinguished for his contributions to organic chemistry, and the former for the zeal and success with which he has studied the subject of poisons. I have had the pleasure of hearing both of them lecture. A fortnight ago I listened with great interest to a lecture of an hour and a quarter's length by Orfila, who, as you are aware, is professor of medical chemistry in the *Ecole de Médicine.* The room in which he lectured is an amphitheatre, capable of containing five hundred persons and upwards; the seats are without backs, and the whole appearance of the room is decidedly plain. It is said that more students attend Orfila's course than that of any other professor in the school. The morning on which I

attended him his room was crowded to excess. The rush of the students, who were not admitted until a few minutes before the hour of the lecture, was as great as that which has so often made the Institute building to shake again; but the shouts were not heard. The venerable, commanding, and intellectual looking professor made his appearance just as the clock struck half past ten, the hour for commencing his lecture, and was received by the class with considerable clapping of hands; I did not hear a foot stir. Orfila cannot be less than fifty-five years old, if he is not sixty; his head is bald over the whole of its upper half, while the back part and temples are covered with thick, nearly white hair. He is but a line under six feet in height, of fine form, and in every way a man of striking appearance. His head is ample and well formed, his eyes black, his nose Grecian, his mouth large and expressive. A better lecturer than Orfila one will not often hear on any subject. With his fine person, large, penetrating eye, clear, strong voice, and earnest manner, he makes an impression upon his hearers which does not speedily pass away. He is emphatically an earnest man; his countenance, voice, gesticulation all testify to that essential attribute of the orator. While lecturing he walks from end to end of his long table, his experiments being performed by assistants, of whom there were three the morning on which I attended. Three assistants were too many by two, at least for this lecture, and as a consequence some glass was broken, and one experiment was a failure. There are few things which too many hands do not spoil. The apparatus exhibited during this lecture was plain, and not as well kept as it might have been.

The lecture was professedly on oxygen, but half of it was devoted to electricity. Among the experiments pertaining to the latter subject, I may mention the dazzling one of igniting charcoal points by the electricity of a galvanic battery. This experiment succeeded well when performed in the atmosphere, but when attempted under water it could not be called any thing but a failure, which was owing to the awk-

[illegible] of one of the assistants who did not bring the [illegible] [illegible]. The [illegible] used in the lecture was obtained from the [illegible] of [illegible], and also from which by the action of the galvanic battery, as is now done in every course of galvanism. No experiment was performed which I had not witnessed before at Louisville and all that I saw did in this way was simply to improve a little in the [illegible] the [illegible] of [illegible] in presence the [illegible] being [illegible] in his assistants. At the close of every division of his subject the professor drew from his pocket a silver snuff-box, took a pinch of snuff, replaced the box, used his handkerchief, and then continued his discourse. I have repeatedly heard him since in his twenty-second course, but although always interesting, he has said nothing yet new to me, or which I suppose, would be new to your readers. I promise myself great privileges from his lectures on poisons, a branch of medical science in which he is unrivalled, and when he reaches that part of his course I may be able to report something of interest.

The students in attendance at the School of Medicine are a well dressed body of generally quite young men, among who there are many who are well favored, but not a few who are the reverse; some are of good size, but many, the majority, are small. They sit with their hats on, are very attentive, and in Orfila's theatre, make no noise, except at the appearing of the professor, and at the close of his lectures, when there was a clapping of hands, but not a single stamp. I saw several students taking notes, and many more who would have done so if they could have commanded the elbow room. It would not be a bad plan to construct all lecture rooms after the fashion of those in London, with boards on the backs of the seats, which serve as desks for writing; for unless a student takes notes upon what he hears he is not likely to remember much, and if he postpones doing so until he reaches his room, besides the time which it would require to bring his notes up, he is not apt to feel much inclination towards the task. The hardest, and the best informed students of my acquaintance

at home, in England, and in France, are those who are most industrious with their pens or their pencils.

Orfila paid a visit, not long since, to Spain, and while there wrote home some interesting letters concerning the state of medical science and medical education in that country. From one of these letters, which appeared a day or two ago in the *Gazette Médicale*, I learn that nine years are necessary to prepare a student for the title of Doctor of Medicine, and that he must study seven years before he is entitled to a diploma, which confers upon him the right to practice in Spain, but does not make him eligible to any professorship. To an American this appears a long time, and few among us, I presume, would willingly enter upon such a probation.

At the meeting of the *Academy of Sciences*, on Monday evening, the 25th of October, among the numerous *savans* present, I was particularly struck with the appearance of Dumas. In the long hall of the Institute of France, in which the Academy holds its meetings every Monday, is a table of an oval form, divided near the middle of one of its sides by the chair and desk of the President, which extends from one end of the room to the other; members sit in chairs on the inside and on the outside of this table, and in addition there are chairs and other tables in the space formed by the oval. The accommodations for visitors are not ample, consisting merely of two rows of benches arranged on one side next the wall, one row on the other side, a few chairs and a little space for standing at the ends of the room.

I took a seat near the entrance in order to learn the names of the members as they entered from the obliging man, whose business it was to stand at the door and prevent persons from coming in after the seats were filled. I was looking about at the different persons present when my cicerone touched me, saying, "there, sir, is M. Dumas." I turned, Dumas was bowing most gracefully to his acquaintances and confreres as he passed them on the way to his chair, at the left hand, and in

front of the president. Seated, his appearance was striking, and his face and person agreeable. He is a young looking man, not seeming to be past thirty-five. In height he is about five feet ten inches, may be a fraction more or less; his hair is a glossy black, and towards its ends waved or inclined to curl; his complexion is dark; his head large; his forehead bold and high; his eyes, I should say, are dark, but whether grey or black, I was too far removed to tell; his nose is prominent and shows a tendency to the variety called 'hook;' his mouth, which is one of the most expressive features of his face, is well turned and emphatically that which belongs to a speaker.

His entire suit was black, save the white cravat which was barely seen above the collar of his velvet waistcoat, which buttoned straight up to his throat. The mark of the legion of honor, a red ribbon, was fastened to a button hole in the left lapel of his coat. He might have been mistaken for a young Episcopal divine. His voice is clear and resonant; his articulation distinct and sufficiently varied, and his manner while reading appropriate. I say while reading, because I only heard him read a paper. Of his style of lecturing, which I have heard so often and so highly praised, I shall acquaint you as soon as he commences his usual annual course early in the coming month. The subject of the paper, which he read before the Academy on that evening, was the conversion of sulphuretted hydrogen into sulphuric acid.

M.M. Humboldt and Boussingault have shown that the water of the Rio Vinagre which, near the volcano of Puraci, falls in a cascade of acidulous water, contains free sulphuric acid, as well as free chlorohydric acid. M. Dumas has made the production of sulphuric acid under these circumstances the subject of his investigation. He has established this general fact, that sulphuretted hydrogen mixed with air through the aid of porous substances, but especially of linen, and under the influence of a slightly elevated temperature, is slowly converted into sulphuric acid. This mode of combusti[illegible]tirely from that which is observed when sul-

phuretted hydrogen is burnt in the atmosphere with the evolution of light and heat. In this latter case the products are water, sulphurous acid, and almost always a deposit of sulphur and traces of sulphuric acid. In the case of the slow combustion of the sulphuretted hydrogen, effected under the preceding conditions, M. Dumas has perceived that neither sulphurous acid nor sulphur have been produced, but that the only result has been the formation of sulphuric acid.

When, on the contrary, water containing sulphuretted hydrogen is exposed to the air, a slow combustion occurs here also, but water only is formed, and sulphur precipitated. The deposit which obtains in all sulphurous waters is a well known illustration of this. In many places he has had occasion to remark the sulphate of lime which had resulted from the action of sulphuric acid produced by the sulphuretted hydrogen. In all great cities, but more particularly in London, it has been observed that large masses of iron exposed to the air become eroded; and this change has been attributed to the presence of sulphurous gas in the atmosphere. This gas is supposed to result from the combustion of coal; though it is a question worthy of consideration whether the sulphuretted hydrogen exhaled from the numerous sewers does not contribute to produce the effect.

Sulphuretted hydrogen may slowly form sulphuric acid, and wherever there are substances upon which this may act sulphates result; thus according to M. Vogel and others, whenever alkaline sulphates are brought in contact with organic matter, sulphuretted hydrogen is produced; and whenever humid remains of plants are exposed to the action of sulphuretted hydrogen and the atmosphere, sulphuric acid and the sulphates will be re-formed. In the form of sulphates then, sulphur may travel through the air in its watery constituent to lands which need it either for the development of vegetables or animals. He thought the part played by yellow sulphur in the production of all the azoted portions of plants and animals was not unworthy of remark; on an average, the 100th part of their entire weight is sulphur. Thus ten

kilogrammes of dry azoted matter, which is about the quantity in a man of ordinary size, contain one hundred grammes of sulphur. To extend the calculation, two millions of kilogrammes is the representative number of the amount of sulphur contained in the population of France, and twenty millions of kilogrammes is the equivalent of the sulphur contained in all the animal creation of France.

I wrote the foregoing some days ago, immediately after attending a meeting of the Academy. Monday, the 16th of November, at 1 o'clock, Dumas delivered the introductory lecture at l'Ecole de Médicine. The court in front of the doors leading to the lecture-room commenced filling at half past 9 o'clock in the morning. The day was cold, the thermometer standing at about 32°, and the students who had assembled so early were obliged to walk about briskly to keep themselves warm. The crowd gradually augmented, and at half past 11 large numbers of medical and other students took their places at the two doors. From this time until a few minutes before 1 o'clock the influx was rapid, and the multitude began to evince signs of impatience and ill humor. As the clock struck one the doors opened simultaneously and the rush was tremendous. I was in the front rank, and had I not been trained to such races before I might not have escaped as well as I did. As it was, I obtained a seat upon the second row of benches, in a position from which I could see nearly the whole audience, and very distinctly hear the professor.

As, I presume, is the case always in a Paris lecture-room where seats are so much in demand, there was jamming, sqeezing, bullying, cursing, and, what is so common among French students, *blackguarding* as we style it. Some tried to obtain places by sitting down in the laps of others, some by jumping in while others had risen up to see a contest going on in some other part of the room. The two doorways were full; the students who had been distanced in the race up stairs, now tried by pushing from without to precipitate

those who were standing, upon the backs and heads of their fortunate companions seated below; nor were they entirely unsuccessful, for several men lost their balance and fell forward, creating such confusion that the lecturer was obliged to make more than one long pause in his discourse. Considering that from seven to eight hundred students were crowded into a room calculated to seat about five hundred, there was a most commendable degree of silence and order, which, in fact, were never disturbed, except when some corpulent man was forced to cry out for quarters, or some light youngster was pushed from his place, and tumbled headlong upon his neighbors below him. Amid all the scuffle not a blow was struck; one man was kicked at the close of the lecture, and the quarrels were numerous, but they ended, as all the quarrels that I have witnessed in Paris have, in the most disgusting scurrility.

Dumas and the other members of the Faculty wore the black and purple robes. The eloquent discourse was read, and consisted principally of a eulogy upon Augustus Bérard, who died not long since loved and lamented by all who knew him—a loss to science, to France, and the world. Dumas was at times touchingly eloquent, and more than once was obliged to pause from emotion, as he was repeatedly compelled to do by the plaudits of his audience. His lecture was more than an hour long; it has been published in the *Gazette des Hopitaux*, and after having read it carefully I am prepared to pronounce it a most beautiful discourse, abounding in noble thoughts, clothed in the richest drapery. The annual distribution of prizes was made at the close of Dumas' lecture. The gentlemen to whom they were awarded came forward and received them at the hands of Orfila, but the *sages femmes*, although their names were announced, were not seen.

Clamart is the name of an establishment for dissection, having large, well aired rooms for this purpose, besides a theatre for lectures, and a museum. The subjects are fur-

nished by the hospitals. The museum contains comparatively but a small number of either anatomical or pathological preparations; but among these there is a considerable variety of curvatures of the spine, which are highly interesting and instructive. Among the preparations of the bloodvessels is one of irregular distribution of the arteries of the lower extremity, which may be regarded as not only unique, but important in its connection with surgical diseases and operations; unfortunately the specimen is not perfect, in as much as the aorta has not been preserved. One large arterial trunk follows the course of the posterior iliac, and furnishes to the pelvis the usual number of vessels supplied by that artery. The same great vessel then emerges from the sacro-sciatic notch a little to the outside of the deep or pelvian pudic artery; afterwards it pursues the course and accompanies the great sacro-sciatic nerve until they both enter the popliteal region, when its future connections and distributions are normal. You will observe that this great trunk represents, first the internal iliac, and afterwards the artery of the leg. It is natural to inquire in what manner the thigh was supplied with blood. On examining its anterior region, an artery of the thigh, the profunda, is seen, but its connection with the lower part of the aorta, from which evidently it had proceeded, is destroyed. This vessel, the profunda, appears to have followed the direction of the external iliac without sending off any vessels except the circumflex iliac and epigastric, until it had gained its usual situation in the thigh, when it divides in the customary manner. The internal circumflex is much smaller than common, and, as always occurs under such circumstances, the obturator is proportionally large.

Here is a case which I have watched at *La Charité*—it was gangrene of the left arm, and terminated fatally. The patient was a man 30 or 35 years old, a nailer by trade, had constantly enjoyed good health, and was never exposed ntact with animals or any portion of them, who had ffected with malignant pustule or *charbon*. The dis-

ease commenced with a small pustule over the deltoid muscle and was the seat of considerable anxiety, accompanied by severe itching which induced the patient to scratch until he broke it. He entered the hospital the fifteenth day of the disease; the pustule presented a black slough of one centimeter in diameter, and situated in the point first attacked. Immediately afterwards it increased much in volume, became indurated and surrounded by a phlegmonous circle. On the third day the whole limb was tumefied, red, hot, and painful. The swelling increased rapidly the two following days. Below the slough the limb was exceedingly tense and œdematous, especially in the region of the hand, and presented in different places livid spots.

The slough becoming gangrenous was cauterized with butter of antimony. The ensuing day the gangrene became more defined, and the wound was cauterized with the hot iron by M. Velpeau. This, however, did not arrest its progress; by this time it had extended almost as low as the elbow; the gravity of the symptoms continued unabated, shivering came on, followed by fever and other constitutional symptoms, with great anxiety in the precordial region, and diarrhœa. The limitation of the gangrenous eschar which now seemed to have occurred, induced M. Velpeau to amputate the limb at the shoulder joint, from which the patient appeared to suffer no pain. There was an apparent alleviation of the symptoms the first day; the pulse fell from 140 to 120 beats in a minute; but the day following difficulty of deglutition, a sense of oppression in the region of the heart, with cold, clammy perspiration, ensued, and soon the patient sunk, retaining his self-possession to the last.

The amputated limb when examined showed all the tissues involved by gangrene down to the bones. On inspection of the body nothing was observed except slight congestion of pleura costalis of the left side. A large fibrinous clot of unusual consistence occupied the right auricle and ventricle; the arteries and veins were unaffected. The existence of this coagulum is supposed to have been connected with the precor-

dial symptoms which constituted one of the most prominent and unpleasant features of the case. This is a brief report, but contains all that it seems to me was presented by the unfortunate and interesting case. I may mention that M. Jobert of *l'Hôpital St. Louis*, has lately reported a case of malignant pustule which is intimately connected with the gangrenous affection just noticed, in which the use of the red-hot iron was followed by recovery.—Frictions of the tincture of iodine have been recommended in inflammations of the *os uteri*, by Dr. Licherer of Heilbronn.

On the Division of the Tendon of Achilles.—Prof. Stromyer has lately published the following propositions relative to the section of this tendon, which I find in the Gazette des Hôpitaux of the 12th of November:

1st. The separation should be performed with a small knife, the blade of which is slightly curved at the point and very sharp: the subcutaneous method should be employed, and but one opening made in the skin.

2d. The tendon must be completely divided or the operation will not be successful.

3d. When the other muscles or the plantar aponeurosis are retracted simultaneously with the tendon, they must be divided before the section of the latter is made.

4th. After the operation, compressions are applied to the wound by means of the figure 8 bandage.

5th. Among adults, on the fourth or fifth day of the operation, and among infants on the third or fourth day, the first dressing is removed, and if it is found, as is generally the case, that the little wound is healed, you proceed to make extension: this is never to be resorted to while the wound suppurates or any considerable degree of ecchymosis exists.

6th. The limb is bandaged and properly protected from compression, before the foot is placed in the machine for extension.

7th. Extension is performed gradually and gently, and diminished whenever the patient complains of pain.

8th. In order to avoid excoriations, erysipelatous inflammations, and mortification of the tissues, the dressings should be removed whenever the patient feels any severe or continuous pain in the points under pressure.

9th. When the dressing is removed the limb should be covered with flannel.

10th. It is known that individuals who have submitted to the operation in question experience a sensation of cold and numbness, which is sometimes limited to the heel, and in some instances extends throughout the whole of the foot; this sensation diminishes gradually, and disappears ordinarily on the sixth or eighth day.

11th. The first or second day of the operation, although the individual may not have been subject to sweating of the feet, the foot which has been operated upon gives off a viscous exudation of a disagreeable odor.

12th. In placing the foot in the machine for extension it must form a little more than a right angle with the leg, and be kept in this position for eight days. After this period the foot must be wrapped with a circular bandage, and the patient must be allowed to make no attempts to walk before the fourth week; without this precaution the member will become swollen, the cicatrix will be irritated, and perhaps even the newly formed tissues destroyed.

13th. It is impossible to define the exact duration of the cure; this will depend on the state of the patient, the degree of the deformity, and the extensibility of the articular ligaments.

Dr. Moij'Sisovics, first surgeon to the imperial hospital at Vienna, has addressed to the Academy of Medicine, at Paris, a work entitled "An account of a sure and speedy method of treating Syphilis, by the preparations of Iodine." The author wishes the Academy, through a committee, to investigate what he has announced, and make a report on his work.

M. Fantonetti, an Italian physician, in the treatment of *acute articular rheumatism*, administers, instead of the large doses of quinine used in some of the French hospitals, only two grains of the sulphate of quinine every two hours, associated with the same quantity of crystalized tartaric acid.

M. Gazzi, also an Italian physician, speaks in terms of praise of the efficacy of the black hellebore in melancholy and mania—the treatment of the ancients.

Valerianate of zinc has been highly recommended as an *anti-neuralgic*, by M. Narnias, who has witnessed its good effects in a number of cases.

M. Filacchione, in one of the late Italian journals, speaks of the nature and the treatment of the visceral alterations in autumnal fever. The visceral changes most commonly observed are in the liver, spleen, and pancreas, and are dependent, in the opinion of M. F., upon a lesion of the ganglionic plexus, which presides over the vitality of these organs. If there is merely a hyperemia of the liver, &c., he administers the sulphate of quinine associated with rhubarb, extract of gentian, and other bitters. If it should have gone on, however, to a hypertrophy, he has recourse to the muriate of lime, to calomel, with extract of aconite and taraxacum; covers the region over the affected organ with cataplasms of mallows flowers and hemlock, and gives as a drink decoction of the same flowers, with acetate of potash, and the syrup of chicoree and taraxacum. This treatment has always succeeded in preventing relapses. In cases where the consecutive alterations persist a long time, and are associated with serous collections in the abdomen, he uses mercurial frictions upon the abdomen; internally syrup of squills, united to colchicum and calomel, and enjoins the milk diet.

M. Cattell proposes to obviate the irritation of the digestive organs and the nephritic symptoms, which frequently fol-

low the administration of copaiba and cubebs in the usual mode, by giving them in the shape of an injection.

M. Jobert, at *l'Hôpital St. Louis*, in one of his clinics, spoke of the causes and treatment of erysipelas. He believes that the cause of erysipelas exists in a peculiar constitution of the atmosphere, and that it is alike independent of the gastric conditions and traumatic lesions, though the former may render its progress more rapid, and is susceptible of facilitating its development, though incapable of producing the disease.

If it is asked why then does erysipelas show itself in patients who are suffering from wounds, first upon the injured parts? The question is easily answered. Why, in a number of persons exposed alike to the same vicissitudes of temperature, is one affected with pneumonitis, another with pleuritis, and the third with arthritis? We account for these differences by admitting a special disposition of the organs, a susceptibility more or less great, which renders them more or less liable to feel the effects of the same cause. This susceptibility may be either the result of a peculiar physiological disposition or tendency, or of a pre-existing pathological condition.

Every one knows that a person who has suffered often from bronchitis, acute articular rheumatism, &c., is constantly exposed to a repetition of the same diseases under the influence of the slightest causes. The same thing in reality occurs when erysipelas supervenes in a patient who, in some part of the body, presents a solution of continuity; if in such cases the eruption shows a preference for the borders of the wound, it is because at those points the skin has been the seat of an inflammation which, notwithstanding that it may have disappeared, has nevertheless augmented the susceptibility of the part, and by that means has rendered it more liable than any other portion of the body to take on erysipelas. There is scarcely any doubt that erysipelas often exists and produces certain constitutional modifications before

it offers anything to the eye of the surgeon; and it is a mistaken idea, that wounds are the occasional cause of the affection.

Erysipelas has often prevailed as an epidemic in the wards of M. J., and supervened indiscriminately upon patients who presented wounds and those who presented none; so frequently, indeed, has such been the case, that he considers himself authorised to regard the atmospheric constitution as the principal cause of the disease. Among all the objections which may be urged against this theory, none will destroy the important and remarkable fact, that erysipelas and hospital gangrene are two complications more frequent in the wards of M. Jobert than in any other wards of the hospital, and that his ward, (that of the men), is more unwholesome, more poorly aired, in a word, that the patients in it are placed in the worst atmospherical conditions.

Epidemic erysipelas has prevailed in other epochs than our own. It was remarked by Tozzi to prevail in the autumn and winter of 1770, at Naples. In 1773 Wm. Bromfield made mention of an epidemic erysipelas, which continued two years. M. Velpeau published in the Gazette des Hôpitaux, in 1831, some observations on epidemic erysipelas.

Whatever may be the nature of the eruption, whatever may be its form, the treatment employed by M. Jobert is always the same, consisting of an ointment of nitrate of silver, which, though it may vary in strength, acts always in the same way; M. Jobert esteeming it a powerful antiphlogistic. He uses three species of ointment, differing in strength as one, two, three; the first contains thirty grammes of simple cerate, and four grammes of nitrate of silver; the second eight grammes; the third twelve grammes.

To the two forms of hospital gangrene, 1st, the ulcerous described by Delpech; 2d, the pulpy form, described by Dussaussay, for which, however, M. Jobert substitutes the albuminous form, since he considers that the term conveys a much more definite idea of the nature of the malady, this surgeon adds a third—the form *ramollissement.* This, which

is not described in the books, is characterized by patches, varying in extent, gray, soft, sprinkled or studded with small black points, which appear to be formed by small ecchymoses. The granulations completely destroyed, they are themselves the seat of mortification, whilst, in the preceding form, you are able by a brush with the greatest facility to remove the fibrin which exposes to view the red granules more or less altered in organization, and that bleed when exposed.

The cause which seems to have most influence in developing hospital gangrene is the atmospheric constitution. Of the three varieties the second, or albuminous, is incontestably the most frequent.

The treatment used by M. Jobert is to dress the wound with camphorated spirits or lemon juice; if the disease continues, the parts covered with the albuminous matter are cauterized with the nitrate of mercury. Should the malady pass its first stages, M. Jobert resorts to cauterization with the red-hot iron.

M. Labus, an Italian, having established the diagnosis of Bright's disease, in a woman aged 32 years, gave as a drink a mixture of four grammes of medicinal nitric acid, in seven hundred and fifty grammes of water, with simple syrup and mucilage of gum arabic, each fifteen grammes. This drink was first administered on the 16th October, it was discontinued on the 26th January, 1846, when the urine was normal, her nutrition excellent, and the embonpoint restored.

M. Scotti, another Italian, having remarked that in some cases of scrofula which he had treated with the preparations of the juglans regia a habitual constipation resulted, conceived the hope of finding this agent a remedy against diarrhœa. It is applicable to all cases of diarrhœa except when the disease is accompanied by inflammatory symptoms. M. Scotti prefers the extract obtained from the hull of the walnut, and the green leaves of the tree. He dissolves eight or twelve grammes of this, which he has obtained by decoction

and evaporation, in a kilogramme of mineral lemonade, and administers a third or a half glass full of this drink four times a day.

One of the medical societies of Paris excludes from becoming its members all those who, in any way, countenance charlatans.

I do not attend with any regularity the meetings held on every Monday, of the Academy of Sciences, because if I would procure a seat I must stand by the door for an hour and a half before it is open, and that is more time than I can spare, and requires more patience than I can muster. The meetings are not generally of especial interest, more particularly after one has attended one or two and seen the principal men, as I have done.

M. Roux, at *Hotel Dieu*, is an old, short, thick, and not intelligent looking man, who speaks with great rapidity and little distinctness, though his clinical lectures are replete with good sound principles, so far as I, who understand the French so poorly unless when it is spoken slowly, can judge.

A week ago he ligatured the femoral artery of the right side for an aneurismal tumor situated at the superior extremity of the tibia, that is to say, in the spongy tissue which constitutes the tuberosities of this bone. Before performing the operation he spoke at length of aneurisms occurring in both the soft parts and in the bones, but more particularly of the disease in question. But to give you a regular outline of his valuable lecture.

Diseases of this kind belong to the great class of *Angiectasis*, tumors formed by the blood, and resulting from a dilatation of the vessels. The angiectases form two distinct categories; those which appertain to the large vessels, and affect most frequently one vessel alone; and second, those which have their seat in the capillaries, and result from an enlargement of these vessels, and a change of their nature

and consistence of the parts which surround them. The name of *tumeurs fongueuse sanguines*, which the French render *fungus hematodes*, may be translated erectile tumors, aneurism by anastomosis, certain tumors formed by the accidental development of a spongy or alveolar tissue containing a large quantity of blood, and appearing to result from an inextricable interlacing of dilated and altered capillary vessels, &c., &c. Along through the discourse M. Roux called this a *tumeur sanguin*, or bloody tumor. He made another division by which those tumors (*tumeurs sanguines*) were classed —those which occur in the soft parts, and those which are seen in the skeleton. The difference between them is very great, both in the causes of their production, their seat, &c., &c.

For the fungous tumors of the bones there are three methods of treatment; 1st, the ligature of the principal artery of the member; 2d, amputation of the member itself; 3d, in rare cases, the removal of the portion of the bone which is the seat of the disease. In Roux's long practice, with an experience of thirty years in hospitals, he has only observed this form of the affection (fungous tumors of the bones) three or four times. It is a disease which may be developed in any bone of the skeleton, provided it possesses a spongy tissue, but it is much more common in the bones of the extremities, and in those of the inferior rather than of the superior. It is encountered almost entirely at the articular extremities of the bones, which it is well known are the portions most abundantly supplied with spongy tissue, and the tibia is both by its structure, organization, nature, and disposition of the tissue, &c., especially exposed. It is produced by accidental causes, as external violence, contusions, violent distension, or in some cases by a mere strain of the articulation. In the present case it supervened upon an attempt to relieve a carriage, in which the man brought his right knee into violent and prolonged action, after which he felt in the member a sense of distension as from a strain. When a blow or a fall has provoked its development, a longer or shorter period may intervene be-

tween the accident and the appearance of the disease. In cases where it follows another series of causes, as, in lifting weights, or straining the knee in any other way, the patient feels generally a cracking in the articulation, a distension, which as you have seen in this case, may occur suddenly.

The disease is noticed more frequently among young subjects than among adults. The appearances presented by the affected limb now before us, are, the superior extremity of the tibia is larger than that of the opposite limb; the leg has lost somewhat its natural form. The external lamellæ of the bone have been entirely destroyed, the destruction having commenced from within and come outwards, and through this pathological opening a portion of the alveolar, spongy, fungous tissue, which results from the fungous transformation of the bone, protrudes, forming a hernia—elevates the skin, and forms a more defined tumor. Placing your hand upon the surface of the tumor, you are able distinctly to feel pulsations synchronous with those of the heart, and which may be compared to those that you distinguish when you have an aneurismal tumor, except that you feel neither the force nor the extent of the pulsations which you do in pure aneurismal tumors. You feel the beats in only a small portion of the fungous tissue, and these are not very strong. The cause of these pulsations is well known.

At *Hotel Dieu*, in the wards of M. Louis, a woman presented herself laboring under erysipelas of the face. She was treated for this affection until all external evidences of the disease had entirely disappeared. She however continued extremely feeble, soon began to grow worse, and laboring under the symptoms of gastro-intestinal inflammation, she died. The autopsy revealed a lively red appearance of the mucous membrane of the stomach, and a part of the intestinal canal, and partial softening of this membrane in some portions of the stomach. The heart, lungs, etc., were healthy.

Dr. Boudet speaks in high terms of the efficacy of iodide of potassium, in the form of ointment, in articular rheumatism. He has seen a violent case of lumbago relieved in one hour under the influence of frictions with iodide of potassium, and disappear completely the third day. Rheumatismal inflammation of the thigh has been not less successfully treated in the same way; and M. Boudet proposes now to try it in inflammatory rheumatism of the articulations.

The administration of arsenic in the treatment of furuncles has been suggested and praised by Dr. Schweich, of Neurried. This physician prescribes four drops of Fowler's solution, morning and evening, until the patient has taken three grammes; five drops are now administered until other three grammes are consumed, when the dose is augmented to six drops, and persevered in until three more grammes are taken, which always succeeds in curing the disease. During this medication it is not necessary to change the ordinary diet of the patient. In the first week of the treatment it is not rare to see new furuncles appear, which however remain in their rudimentary state, and finally disappear. Relapses, after the use of this medicine, are extremely rare.

Among the thirty or forty cases of typhoid fever which have been treated during the last four months at *La Charité* by M. Briquet, only three have died. The treatment which he pursues is briefly this—an emetic of one or two grains of tartarized antimony; in the evening of the same day, a bottle of Seidlitz water, or a purgative injection. The second day a bottle of Seidlitz water, taken by half glasses during the day, in the guise of the ptisan. If this does not act sufficiently upon the bowels, you assist the laxative taken by the mouth, by a purgative injection. It is rare that purgatives have to be persisted in for any length of time; more generally in a very few days the febrile phenomena disappear, the pulse falls, &c., and in a very short time the patient is able to take a small quantity of broth. In typhoid fever

thus treated you will remark in particular, that the convalescence is very rapid, and that it is rarely retarded by relapses; if, however, any should occur they easily yield to a bottle of Seidlitz water; finally, a very few days after the amelioration has begun, the alimentation may be composed of meat soup, or of meat itself.

M. Guirard, at *Hotel Dieu*, has prescribed sulphate of quinine in rheumatism, with very great success.

Here, perhaps, I may as well close this rambling letter. It will be remarked, I trust, that my endeavor has been to communicate as much matter in as little space as possible, without much respect to style. If the readers of the Journal have the patience to follow me through these desultory communications, I think I am safe in promising that my stay in Paris will enable me to add, each month, to their interest.

Paris, November 30th, 1846.

ART. II.—*A Case of Compound Fracture of the Skull; with depression of both tables, and laceration of the Membranes and Substance of the Brain.* By T. B. GREENLEY, M.D., of Westpoint, Kentucky.

On the 25th August last, Mr. G., a young man, aged about 21 years, of stout make and robust habit, received a severe injury of the cranium, from a blow with an angular-shaped stone. He was deprived of his senses from the time the injury was inflicted. This occurred in the morning directly after an early breakfast. I was sent for immediately, but was not able to reach him before about 4 o'clock in the afternoon. When I arrived I found him lying on the bed, which was very bloody, and the wound still bleeding.

I examined the wound with a probe and found the skull

fractured in the region of the parietal eminence; and both tables depressed into the substance of the brain to the depth of an inch. The scalp was cut with angles of the stone so as to form three flaps—the depressed portions of bone being under one of these. In order to remove the depressed pieces of bone it was found necessary to extend one of the angles of the wound, which was done with a scalpel.

After washing off the blood and taking out wads of hair, &c., from the wound, I proceeded to remove the depressed pieces of bone. In the first place I introduced the blunt forceps belonging to a pocket case, but found that I could not insinuate the blades between the fractured pieces, owing to their being carried so evenly before the fulminating body.

The wound being full of blood and still continuing to bleed, compelled me to operate in the dark, or altogether by feeling. After failing to seize the fractured portions with the blunt forceps I was fearful there would be great difficulty in removing them. I however introduced a pair of dressing forceps also belonging to my pocket case, and was able with these owing to their sharp points, to insinuate the point of the blade between two pieces of bone, and force a small piece out. This made room for the introduction of the blunt forceps, before alluded to, with which I soon removed all the remaining pieces—seven or eight in number. After washing the blood out of the wound as well as I could, I found the membranes of the brain, as well as the brain itself, considerably lacerated. I cut off the contused and lacerated portions of membranes and took out several pieces of the substance of the brain, amounting in quantity to about three drachms.

I now brought the flaps of the wound together and closed it with the twisted suture. The hair was then removed from his head, and cloths dipped in cold water applied; venesection at the arm until the system became relaxed; and a purgative dose of medicine administered.

The removal of the depressed portions of bone, together

with the loss of blood from the arm, thereby relieving to some extent compression of the brain, appeared to bring him to a partial consciousness of his situation.

It was about 5 o'clock when I got his head dressed and bled him. It will thus be seen that he labored under severe compression of the brain from early in the morning till late in the afternoon, including some nine hours.

Owing to the severity of the case I deemed it necessary that a physician should be with him during the night; and, it being impossible for me to remain, I sent for Drs. Geoghegan and Withers, practitioners of this place, with the hope of getting one of these gentlemen to remain with him. Dr. Geoghegan consented to stay with him all night.

August 26th. I saw the patient to-day about 10 o'clock; his condition about the same as when I left last evening. Had an action on his bowels during the night from the effects of the medicine. Dr. G. informed me that the symptoms continued pretty much the same they were when I left.—Pulse strong and full, but not frequent; tongue slightly furred; pupils nearly natural; action of the kidneys healthy; feet a little inclined to get cold; slight tumefaction at the wound; insensible to objects around him. Abstracted about sixteen ounces of blood from the arm; repeated cathartic medicine; continued application of cloths wrung out of cold water to his head; ordered room to be kept quiet and darkened; and warm rocks, &c., to his feet in case they manifested a disposition to get cold.

27th. Saw the patient about 12 o'clock. No material change in his condition since yesterday. Secretions all appear to be going on properly. Repeated venesection and cathartic medicine. Other treatment continued. Action of the medicine aided by the use of the syringe when necessary.

28th. Saw the patient again to-day about 12 o'clock; condition pretty much the same as on yesterday. Same treatment continued.

29th. Visited him to-day about 5 o'clock in the afternoon. Found him much worse. Convulsions made their appearance last night, and continued to increase in severity and frequency, being very slight at first. While I was there he had a very severe spasm, which lasted nearly an hour. I attributed the convulsions to compression of the brain produced by accumulation of matter in the wound—which had so nearly closed up by the healing process as to obstruct the exit of any matter that might form within. Acting on this supposition I made an incision at the site of the original injury with an abscess lancet, and had a poultice of slippery elm applied. The other treatment pretty much the same as heretofore.

30th. Saw the patient again to-day about 12 o'clock, and was much gratified to find that the convulsions had entirely abated; and there appeared to be some little improvement in his general condition.

The family informed me that the spasms became lighter and less frequent from the time the incision was made the evening before.

The place on his head was mattering very well, having quite a healthy appearance. I was informed by his attendants that a great deal of matter was discharged from the wound during the night. The principal treatment now consisted in keeping his bowels open, and avoiding all exciting causes.

Cold applications continued to his head, and warm ones to his feet when necessary.

His diet has been very light up to this time, in fact scarcely any thing.

31st. To-day the patient appears to be still improving. Is nearly rational: asks for water, &c., whenever he wants it. Can distinguish individuals; comprehend and answer questions. Has some appetite. Same tratment continued. Venesection omitted from yesterday.

Sept. 1st. Still improving. Everything appears to be

favorable, and would go to indicate a speedy recovery. The wound presents a healthy aspect, and continues to discharge some pus of a laudable character. Continue poultices of slippery elm to the part, frequently renewed.

3d. To-day I found the patient still improving. He appears to be perfectly rational—conversing rationally on any topic; the only deficiency being a slight stoppage or impediment in his speech. This he says is because he forgets occasionally what word he should use. He is able to go about the house, and out of doors when the weather is pleasant.

6th. To-day I visited my patient for the purpose of leaving directions for his general management, and to dismiss him. He is now in a manner well, with the exception that the wound continues to discharge a small amount of matter, though of quite a healthy character.

I saw him at this place in October, perfectly well in every respect. The wound has healed up; and the stoppage of speech before alluded to, which he labored under a short time, has entirely disappeared. He is now very stout and robust, being much more fleshy than he was previous to receiving the injury.

The recovery of this case may be said to be an extraordinary one. When I first saw him, considering how long it was after the injury was inflicted before he received any surgical or medical aid, the excssive heat of the season, together with the dreadful character of the injury, I unhesitatingly pronounced his recovery impossible. In this opinion I was corroborated by that of Drs. Geoghegan and Withers, both of whom saw him the day the misfortune happened, and the former frequently during his recovery. This opinion was also entertained by every individual who saw him. In fact, I had but little hope of his recovery for a week after he received the injury.

There are not many cases on record, as far as my memory serves me, where recovery took place after the loss of a

portion of the brain, although such a fortunate result does occasionally happen.

In the case of this young man I could not help but observe and admire the medicative force of nature; and accordingly have set her down as an able and mighty physician.

December, 1846.

ART. III.—*Notes on Epidemic Scarlet Fever and Measles.* By SILAS AMES, M.D., of Montgomery, Ala.

These diseases prevailed in an epidemic form in Montgomery and its vicinity, during a part of the winter and spring of 1844. In their progress they presented some remarkable anomalies, which I propose to describe by some extracts from my note-book. The notes will be found to have but little practical value, but the facts recorded are interesting as opposing a theory of the simplicity of the diseases, which was advocated by Mr. Hunter, and which, having been assumed by Hahnemann as the basis of his therapeutics, his followers, many of them at least, believe to be necessary to the integrity of his system. The reader will observe that the observations extend somewhat beyond the peculiarities of these epidemics, though chiefly confined to them.

The scarlet fever made its appearance in January. The first case that I saw occurred on the 26th of that month; besides the symptoms common to the disease, this case was attended with acute bronchitis. After this time it spread very slowly until the latter part of April, when it declined rapidly, and disappeared finally in May, being most prevalent about the first of April.

The measles began in the latter part of March, were most prevalent in April, and declined in the latter part of May.

Each disease wore the livery of the other in a more marked manner than usual, but each maintained its distinctive features so far that there was no difficulty, in any well marked case, even when the two seemed blended, in determining which predominated. There were two cases in which this difficulty occurred, but the symptoms in both were very mild and the rash imperfectly developed. Before the measles appeared, cough was a frequent symptom of scarlet fever, but afterwards became much more common; and catarrhal symptoms frequently preceded the eruption in the latter. On the other hand, the measles was generally attended with more decided anginose symptoms than common, and occasionally they were of very great severity. In two instances the angina of measles terminated in acute laryngitis, and in one other in croup. So great indeed was the resemblance which the symptoms of the eruptive fever of the one bore to those of the other, that I had occasionally to alter the name on my register after the eruption appeared.

During the continuance of these two diseases there prevailed also remittent and intermittent fevers, diarrhœa and bronchitis, to such an extent that, taking into consideration the number, and the time of the year, either might deserve to rank as an epidemic. I did not observe, however, that the fevers differed from our summer endemic fevers either in their symptoms, or in the effect of the usual treatment; nor did I observe that any other disease prevailing at the same time partook of the characters of scarlet fever or measles; but the latter were greatly influenced by the cause of the remittent and intermittent fevers. The whooping cough, which also prevailed to some extent, was conjoined in several instances, in the same person, with scarlet fever and measles, but could not be said to partake of the nature of either, though the former was somewhat modified by the conjunction, and its danger greatly aggravated. The whooping cough did not disappear with the other diseases, but lingered on, with scarcely a perceptible existence, until the spring of the following year, when it spread more generally. There

were also sporadic cases of pneumonia, pleuritis, and dysentery.

The weather which preceded this unusual assemblage of diseases deserves some notice. Although the quantity of rain which fell was not much greater than common, the fall and winter were remarkable for the number of cloudy and wet days; so much so that the roads got into a worse condition than had been known before, and the untrodden land became miry and unsafe. This kind of weather continued from early in November until about the tenth of February, when it was suddenly displaced by the opening of spring, early as was the season, in more than its usual mildness. Nearly six weeks of uninterrupted dry and warm weather succeeded.

Scarlatina. *Varieties.* Generally anginose.—I saw but few cases of the malignant, and but one of the simple form.

Eruptive fevers.—This was generally remittent, but often continued, in a few cases intermittent, and in a few others congestive. The forming stage was always short, and sometimes there were no premonitory symptoms.

Case I.—G., two years old, was attacked on the 12th of February. He was taken suddenly, while in apparent good health, with a slight chill, followed by moderate fever, hoarseness, and sore throat. On the 14th, he had the usual symptoms of scarlet fever, with cough, except that the type of the fever was that of a regular quotidian intermittent. The exacerbation began about four o'clock in the afternoon, and declined from twelve at night until morning, when the intermission was complete. On the eighth day of the disease the fever assumed a continued form, and the affection of the throat increased in severity, accompanied by urgent symptoms of laryngitis. He died of the latter affection on the next day.

Case II.—Sarah, a young mulatto woman, was attacked suddenly on the 12th of March. I visited her twelve hours afterwards; at which time the skin on the head and trunk was cool, and cold on the extremities; pulse 150, barely dis-

tinct enough to be counted; respiration very quick; delirium; stupor; cough; palate and tonsils much swollen; great restlessness; whispers hoarsely in speaking; no eruption. She died within twenty-four hours from the beginning of the attack.

Case III.—Louisa, aged three years, daughter of Sarah, was attacked on the same day, the 12th. Symptoms the same as her mother's, except that she had no sore throat, and the stupor was succeeded by convulsions. She died within thirty hours from the beginning of the attack.

Angina.—The principal peculiarity in the affections of the throat was the tendency to laryngeal inflammation. This occurred very often, and was the cause of death in many of the fatal cases. The inflammation sometimes covered the pharynx, as far as it was visible, in every direction. The white patches on the fauces did not always cover an ulcer. In several cases I saw dark and fœtid ulcers on the tonsils, and in one on the posterior palatine arch, without other malignant symptoms.

Eruption.—The eruption usually appeared on the second day, but frequently on the third. In a few cases it partook of the character of that of measles: in one case it alternated with it; and in another both eruptions were out distinctly at the same time on different parts of the skin.

Case IV.—B. P., aged eight months, having had whooping cough ten or twelve days, this disease being fully formed, was attacked with scarlet fever on the 18th of April. On the first and second days afterwards the cough was mitigated, but on the third day, the eruption having come out freely, the cough resumed its former violence with whooping. On the fifth and sixth days the eruption resembled that of measles in several particulars. It had taken a darker hue, was in patches, separated by portions of clear skin, contrasting strongly with the affected parts, and was elevated; but the patches were neither so small as in measles nor so circular or crescentic in form. On the seventh day, the eruption

remaining unchanged, he had symptoms of hydrocephalus; on the eighth convulsions; and died on the ninth comatose.

Case V.—H. W., five years old, was attacked on the 15th of April with the usual symptoms of scarlet fever, and cough. On the third day the eruption was very distinct and had the characteristics of this disease. On the fourth day, in the morning, these characteristics had disappeared, and those of measles had taken their place; at the same time his face had become tumid, and his eyes red, suffused, and painful in the usual light. The eruption had now the distinctive signs of measles,—in its appearance on the fourth day, in being accompanied by catarrhal symptoms, in occurring in small patches, circular or crescent shaped, elevated and dark, with intervening portions of skin not affected. On the fifth day, the symptoms of measles were mitigated or absent; the rash though faded had resumed the appearance of scarlet fever, except on a small part of the arms near the wrists, and on the knees, where it had a vivid color, and retained the appearance of measles. On the sixth day, no trace of measles could be discerned except the cough, which was greatly aggravated. The ulcers on the tonsils had become deeper, dark, and offensive; diarrhœa had supervened; the abdomen had become tumid and tender, and the tongue dry and fissured. He died on the seventh day, apparently from enteritis.

Case VI.—L. W., sister to H. W., aged ten years, was attacked on the 23d of April. The symptoms were those common to scarlatina, except an almost continued sweating, which at that time was a common symptom of measles, and that the fever was a quotidian intermittent, distinct and regular, and accompanied by a slight cough. The eruption came out on the third day, and occupied more surface than was common. On the fifth day, a catarrh, as decided as in any case of measles, appeared with an increase of cough. At the same time there was such a marked change in the appearance of the eruption as to be noticed with great alarm

by her mother, who asked me as soon as I entered the room if the disease was changing to measles. Her attention was confined to the eruption, but on examining it carefully I could see no change except in the color: it was darker, and had more of the raspberry tint of measles. On the seventh day, the catarrh continuing, the eruption had disappeared entirely from the face and neck, and was faded everywhere else. On the eighth day of the disease, and fourth of the catarrh, the eruption of measles showed itself very plainly on the face, neck, shoulders, and upper part of the chest. On the ninth day, it was fully developed, without being extended beyond the parts which it occupied the day before. I did not observe any change in the scarlet rash; it did not recede, but remained in the same state as on the seventh day, until the rash of the measles began to fade, and then followed the course of the latter, so that desquamation did not begin before the thirteenth day. After the measly rash came out the fever became continued, without any abatement of the perspiration. The whole course of the complaint was mild, and convalescence went on favorably.

Sine eruptione.—There were seventeen cases of this kind, eight of which occurred in adults; six of the whole number, I was informed, had had scarlet fever; two others I saw with it in 1840, and one other in 1833; neither of the latter was adult.

Complications.—Besides the complications with measles, there were four cases conjoined with whooping cough. Two of these proved fatal. In all of them the cough preceded the fever.

Crisis.—If favorable, generally on the fifth or seventh day; if unfavorable, generally on the ninth. I did not notice any critical discharges.

Sequelæ.—Generally anasarca. I observed in one case an obstinate urticaria during convalescence, and in several cases aphthæ.

Treatment.—I refer to the treatment chiefly for the purpose of making a single observation, viz: that the remedies,

or remedy, which are most successful in the treatment of scarlet fever in the epidemic of one year cannot be depended on, as a general rule, in that of another year. The truth of this observation is admitted by the profession, I believe, in regard to epidemics generally, but there is supposed to be a character of specialty about what are termed specific or contagious diseases, particularly the exanthemata, which secures a uniform result, or an approach to it, from the same treatment whenever they appear. Although the records of medicine afford abundant evidence that this is an error, there are, nevertheless, but few of even our best systematic authors who do not aid in confirming it, by recommending in this class of fevers, a general plan of treatment, depleting or stimulant; frequently giving prominence to a particular remedy of great power, which is intended to be applied at all times when the same assemblage of symptoms is to be combated. My own experience leads to a practical conclusion the reverse of this, and in accordance with the observation made above.

In regard to scarlet fever, this is the third epidemic of the kind I have seen. The first, which preceded the cholera here, began in May, 1833. In this bleeding, general or local, was the most efficient remedy, and, indeed, almost the only one required. Blood could be drawn safely, and generally with the greatest benefit, in either variety, and in any stage of the disease. In the second, which took place in the spring of 1840, being influenced by my knowledge of its benefit in the first, I again resorted to bloodletting, and recommended it to others, with the greatest confidence; but unfortunately with opposite results. It was decidedly and speedily injurious in every instance, apparently rendering mild cases bad ones, and bad ones fatal. There was a tendency to the formation of abscesses about the throat externally; and I observed that after bleeding, the tendency was increased so far that large ones frequently gathered about the puncture of the lancet or scarificator. When local inflammation existed, which was not uncommon, the loss of

blood seemed rather to aggravate than to relieve it, and I am confident, notwithstanding I express the opinion with much hesitation, that in the absence of any local inflammation, bleeding produced it. I do not think I could be mistaken in this opinion, for I had a large opportunity for observation, and the conclusion was forced on me against all that I had seen of the disease, to say nothing of the teachings and prejudices of medical books. A peculiarity in the symptoms led me to the use of cathartics, which proved to be quite as beneficial in this, as bleeding had been in the former epidemic; the result being equally favorable when the tongue was clean, red, and dry, and the evacuations watery. The latter, however, was rarely the case, as in most instances there was an unaccountable accumulation of feces from day to day.* In the third, that of 1844, I derived very little benefit from any constitutional remedies. I varied them sufficiently, and continued them long enough to become satisfied, that neither the bad nor the mild cases were at all influenced by them as *curative* agents. As palliatives, sponging the body with warm or cold water, and, in the congestive variety, hot salt-water baths, and mustard emetics, were of service. In contrast with the treatment in 1833 and 1840, evacuations from the bloodvessels or bowels were never advantageous in this, even as paliatives. I obtained, however, the most decided advantage from the use of a strong solution of nitrate of silver applied to the palate and tonsils; so much so, that seeing so little good effect from other remedies, and becoming satisfied that the greatest danger consisted in an extension of the inflammation of the fauces to the larynx, I came, after a time, to treat the disease almost solely as a local affection. I must add, however, in concluding the subject, that I have

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* Sir Gilbert Blane records a similar fact, in a case of chorea, "in which the vitiated quality, incredible quantity, and long continuance of alvine *sordes*, was such as to bid defiance to all the principles of physiology and pathology to account for."—*El. Med. Logic, sec. IV*

been informed, on authority that does not permit me to doubt the fact, that Dr. Guild treated the scarlet fever which prevailed in Tuscaloosa at the same time, very successfully, with colchicum, a remedy which I did not use.

Measles. *Eruptive fever.*—Generally remittent; frequently intermittent; rarely continued. In a few instances the catarrhal symptoms did not appear before the eruption; sweating was common in this as well as in the stage of eruption. Vomiting was also a common symptom, ushering in the disease as in scarlet fever.

Case I.—W. P., three years old, was taken with measles on the 25th of April. Fever, a tertian intermittent, with continued perspiration except at the very beginning of the exacerbation; the cold stage, if any, was not noticed. On the fourth day, when the eruption came out, the fever remitted only, and afterwards became continued. On the ninth day, the measles having finished its course in the usual way, there was an intermission; on the tenth day, an exacerbation of fever, preceded by a slight chill. On the eleventh day, an intermission; and on the twelfth, another exacerbation. He took quinine on the next day and night, and had no return of fever.

Case II.—J. H., aged five years, was attacked on the 28th of April. Fever, a quotidian intermittent, accompanied with profuse sweating. The fever continued to have this form, with the usual symptoms of measles in other respects, until the fourth day, when the eruption appeared, and the fever remitted only; afterwards there was no remission till the disease terminated.

I saw several other cases of this kind; the fever, previously intermittent, remitting on the day of the first show of the rash and then becoming continued as soon as the rash had come out fully.

I have neglected to state, in the proper place, that the appearance of the rash in scarlatina did not perceptibly change

the type of the fever. The fact, however, is exemplified in case 1.

Angina.—This was of extraordinary severity in a majority of the cases which occurred previously to the first of May. There was not often white patches, nor ulceration of the throat. I have noted but four cases, two of which had laryngitis. One of the latter proved fatal; the laryngeal affection coming on on the same day, and terminating on the ninth. In one other case the inflammation attacked the trachea, producing the ordinary symptoms of croup. In this case the throat was not ulcerated.

Eruption.—In most cases the papillæ were elevated on the extremities, and the itching of the skin was very annoying. In two cases the eruption resembled that of scarlet fever.

Case III.—A. P., aged eighteen months, was attacked with measles, after having had scarlet fever, before convalescence was established, and whilst the skin was still discolored by its rash. She had great soreness of the throat, with swelling of the tonsils, on which could be seen two or three aphthous patches, and her tongue was like the tongue in scarlet fever. She had diarrhœa also, which was then a common symptom of measles. The eruption bore a greater resemblance to scarlet fever than to measles.

Case IV.—Mrs. E., was taken with a chill on the 4th of June; had a quotidian intermittent fever until the 7th, when it changed to a continued type. She had from the first catarrhal bronchitis, and also some soreness of the throat.—On the 9th an eruption came out on the face, breast, and arms, which spread during the day and night over the rest of the body, including the lower extremities. I visited her on the 10th; the eruption had all the characters of scarlatina (levigata) with a very troublesome itching of the skin. When examined from a little distance, there were perceptible on the face and neck, but not elsewhere, through the otherwise uniform scarlet blush, a number of darker spots, not elevated, representing very accurately the flea-bite appearance of the eruption of measles.

The following table will show the number of cases of scarlet fever and measles in my own practice, and of other diseases that prevailed at the same time, with their relative mortality:

	No. of cases.	deaths
Scarlet fever,	64	5
Scarlet fever conjoined with whooping cough,	4	2
Measles,	30	2
Measles, with whooping cough,	6	4
Whooping cough,	16	--
Remittent and intermittent fevers,	78	--
Diarrhœa and dysentery,	50	1
Bronchitis, pneumonia, and pleuritis,	46	1

Montgomery, Dec. 22, 1846.

ART. IV.—*Remarks on the Pathology and Treatment of Fever.* By JAMES C. HARRIS, M.D., of Wetumpka, Alabama.

In entering upon the discussion af this part of our subject, we shall confine our remarks to those varieties of the disease commonly designated intermittent, remittent, and yellow fever, as embracing all the forms which during the summer and fall seasons prevail in South Alabama. With the exception of the latter variety, which seems to require for its production a higher and longer continued temperature, and a nearer approximation of the dew point to the same, all these fevers appear to be the result alone of malaria, aided, perhaps, by atmospheric vicissitudes and constitutional predisposition.

That the above positions are, as a general rule, correct, is evident from their prevalence at the same seasons, and in the same localities, and from their frequently running into one another. Upon this subject Professor Caldwell, speaking of the yellow fever of Philadelphia in 1803, observes: "As it receded from the low ground and malignant atmos-

phere of water street, it became more and more mild and manageable, until its evanescent shades in second street were in many instances much lighter than the common remittent of the country." Drs. Rush, Ramsay, and Davidge all speak of the simple intermittent, remittent, and yellow fever as prevailing together, and running into each other, or which was more generally the fact, the former being gradually swallowed up in the latter, establishing the position beyond the possibility of a reasonable doubt, that there is nothing in the atmospheric constitution necessary to the production of intermittents and remittents, that precludes the prevalence of yellow fever. But that any one has hitherto been able to establish an exact identity of cause, we have yet to learn. The mere circumstance that in a great many intermittent and remittent fever districts, yellow fever never appears even sporadically, is of itself sufficient, notwitstanding that remittents may prevail in yellow fever regions, to establish the necessity of some other agent or sensible atmospheric alteration. We know that the power of absorption in the air is increased in proportion to its dryness and temperature, and that vicissitudes in its thermometrical, hygrometrical or barometrical states can seldom occur singly. Thus, for example, when the air is warm and consequently more rarefied, the barometer sinks, whilst its capacity for aqueous vapor is increased. By a careful examination of the meteorological tables kept at New Orleans and Natchez,* during the autumnal months of the years 1839 and 1840, in addition to obtaining a clear comprehension of the foregoing principle, we may learn that notwithstanding the excessive heat and dryness of the summer and fall of the former of those years, the barometrical difference at the same point, and even at different places, was but trifling during all that period; ranging, at New Orleans, in 1830, but little higher than it did at Natchez in 1839, al-

* American Almanac, and Hogg on yellow fever. Western Journal, June, 1840, page 404.

though the mean monthly heat was not much greater at the latter place in 1839, than it was in New Orleans in 1840.

From this it is clear that the geographical position and local peculiarities of Natchez under high and long continued heat and dryness, are such as to supply a sufficiency of moisture by evaporation to produce highly concentrated malaria and by the power of absorption, thus suddenly acquired, approximate the dew point very nearly to the temperature, producing that close, sultry state of the air, and that absence of the morning dews so graphically described by Dr. Monette,* as occurring there during the prevalence of yellow fever in 1839. We are informed by this writer, that at Natchez from the 1st of June, until the last of September of the same year, the thermometer ranged from 85° to 95° in the shade, and at the coolest hour of the night from 75° to 80°. In towns and cities, he continues, the reflected and radiated heat increased the extreme temperature to 88° and 96°, by day, and from 78° to 83° by night, the sea breeze at New Orleans reducing the temperature some two or three degrees lower than it was at Natchez, as was ascertained by comparing the tables of Dr. Tooley, of Natchez, with those kept at the Charity Hospital in New Orleans.

In closing this part of our subject we would remark, that the comparative or total exemption from yellow fever of the Island of Bermuda, the town of Campeachy, the Island of Pettites Coquilles, and the beautiful village of Vidalia, opposite Natchez, as well as of all other cities, towns, and villages within the regions heretofore designated as the common or occasional theatre of yellow fever, seems to us to be dependent upon the absence of malaria in sufficient quantities to co-operate with the atmospheric alterations heretofore indicated. It is alone upon the principle of their joint action that we are able to account for the occasional exemption of the cities of New Orleans, Mobile, and Savannah from yel-

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* Monette on yellow fever. West. Jour., May, 1842, p. 327.

low fever whilst a brisk trade is maintained between them and the ports of Havana and Vera Cruz, while the disease is raging in the latter cities. So fully is this principle recognized and acted upon, that Commodore Conner, so soon as he is informed of the appearance of yellow fever on board any of the vessels of his command, orders them to be thoroughly cleansed and put to sea; and this is always attended with the happiest results, no more cases occurring after the ships have passed beyond the influence of the malarial land breeze, unless it be an occasional 'light attack,' in the persons of those whose systems had been thoroughly charged with malaria before leaving port.

Respecting the more immediate action of the remote causes of fever, we refer the reader to an article by the writer, on this subject, in this Journal for June, 1846. In this paper one of the positions taken was that the first impression made by malaria upon the system, is upon the blood in the lungs, and through the organic changes and morbid alterations thus effected, weakened action of the heart and perverted nervous action follow as a necessary consequence; that from a law both of the nervous and muscular systems they must act and repose by turns; that, owing to the connection existing between them and all other parts of the system, every paroxysm excites in the system a general disturbance; creating congestions, which end in local inflammation in some one or more of the different organs, and which become a new source of irritation, and aid in perpetuating the circle of morbid phenomena.

In the same communication it was also contended, that many of our most important remedies in fever reached the seat of morbid action through the medium of the circulation. Quinine we suppose to be one of these. Always a 'stimulant,' its peculiar effects upon the skin, the circulation, and the nervous system, depends upon their state at the time of its administration. Upon this subject we are happy to find that we are pretty fully sustained by the recent experiments of Dr. Mendenhall, of Cincinnati, detailed in the American Jour-

nal of the Medical Sciences, for July, 1846. This remedy in the hands of those who entertain different views concerning its operation, and who are in the habit of prescribing it at the time of high febrile excitement, to the almost entire exclusion of the lancet, the cold bath, and mercurial cathartics, are, in our opinion, doing more injury to the constitutions of their patients than ever resulted from the employment of any other vegetable remedy. Why, in the treatment of fever, where a furred tongue, nausea, and torpor of the liver and bowels, with yellowness of the skin, exist to a considerable extent, any good results should be expected from the use of a remedy which does not evacuate in any sensible manner, and which, according to some, is a powerful narcotic, is to us passing strange. Quinine has been known to produce symptoms such as to excite in the patient fears of approaching dissolution, while ringing in the ears, giddiness, nausea, deafness, loss of vision, stranguary, and paralysis of the tongue, are occasional effects of its administration. Such a remedy should certainly be prescribed with more caution, and with greater discrimination as respects the different states of the system.

From what has already been advanced it will appear that we do not look upon fever in its incipient stages as having any local organic habitation within the system, becoming local secondarily from violent febrile reactions and the greater weakness of some particular organ. Those most usually affected, according to the report of ten cases of remittent fever, which occurred in the Baltimore Alms House Infirmary, collected and reported by Drs. Anderson and Fricke,* were the brain, the lungs, the heart, stomach, and intestines, spleen, liver, and gall-bladder. Of these, the spleen in every instance gave evidence of enlargement and softening, and in nine out of the ten cases, was of a bluish black color. The liver was also in every instance abnormal, being in color either

* American Journal of the Medical Sciences, for April, 1846.

bronzed, or like that of slate. In seven cases out of the ten in which the gall-bladder was examined, it was found distended with a thick grumous bile resembling molasses, and in the eighth case moderately so, with straw colored bile. Although derangements in other forms of malarial fever, similar to those already described, frequently occur, every system, and every organ in the body becoming occasionally diseased during their progress, death resulting from one or many local inflammations, still, from the want of uniformity in their seat and extent, we are compelled to view them in the light of secondary complications, and treat them accordingly.

Symptoms.—Every practitioner is familiar with the symptoms of simple intermittent fever; we shall therefore pass them over, with the single remark, that it must be borne in mind that, in different individuals, the symptoms usually detailed as occurring in regular succession, and at stated periods, frequently prevail in different degrees, and that the several stages in the time they occupy may be in different proportions to one another. But in all, distinct remissions and exacerbations mark the disease. The most frequent varieties in Alabama are the quotidian and the tertian.

An attack of remittent fever is most generally preceded for several days by languor, slight headache, unpleasant taste in the morning, loss of appetite, and pain in the joints.—The first paroxysm is usually ushered in by a slight sensation of coldness in the small of the back, attended with shivering, which sometimes amounts to a light chill, or even an ague. During this stage the tongue is moist and loaded down the centre with a dark brown or light gray fur, and the patient is harassed with intolerable pains in the loins and joints, attended with nausea and vomiting. The pulse is small, soft, and weak, gradually increasing in force and frequency until it rises during the stage of excitement to 130 or 140 in some instances, abating generally during the remission, but never coming down, unless assisted by well directed remedies, to the healthy standard. During this stage

the respiration is hurried, the tongue furred in the centre and red around the edges, and dry; excessive irritability of the stomach is also present, the matters ejected by vomiting being generally those most recently swallowed, mixed with bile sometimes of a healthy appearance, at others of a dark or bluish green color. The bowels are variously affected; sometimes they are costive, at others inclined to diarrhœa. When the latter condition obtains, the dejections are frequent, of a reddish cast, containing mucous flocculi which are passed with griping, attended with more or less abdominal tenderness. The urine is scanty and high colored, the thirst great, and the sense of debility extreme, although the patient is able to turn himself in bed, and rise without any assistance. The skin, which is hot and dry, assumes in some cases a jaundiced hue; there is pain in the head, attended with anxiety and restlesness, and, when the fever rises high, delirium.

Where the foregoing symptoms are left to run their course unchecked by any remedial means, low, muttering delirium, subsultus tendinum, picking at the bedclothes, involuntary discharges, coldness of the extremities, and hiccough supervene, and make up the symptoms that close the scene in death .

In this variety, the cold stage is scarcely ever so long or so distinctly marked as it is in intermittent fever, and never returns; there is also an augmentation of all the other symptoms in violence and duration, and although there are slight remissions and exacerabations occurring daily, they are generally, if noticeable at all, most clearly marked every third day.

The inflammatory variety most frequently prevails during a dry hot season, and generally attacks sanguine, plethoric individuals from northern latitudes, and in the most severe and fatal cases is attended with yellowness of the skin and eyes, and vomiting of a brown, blue, or black bile. Its type in either the newly arrived or the native, is much more continued than any other variety. The heat of surface, anxiety, restlessness, and tension of pulse are always greater and

more distressing than they are in the ordinary intermittents and remittents of the country.

Ever since we came to this country, during dry, warm spells of weather in the summer and autumn, we have met with cases of the above description, and frequently found the other forms blending with and assuming its type to an extent sufficient to cause us to make some modification in our general plan of treatment.

Congestive Fever.—This variety we have long since learned to regard as frequently occurring as a modification in other forms of febrile action, and at any period of the attack; and when complicated with inflammation of the viscera of any of the large cavities it is one of the most severe and fatal of our epidemics. It is observed in places, and at times in which the endemic causes are intense, and concentrated relatively to the state of the predisposition. It is ushered in by a prolonged sense of cold, and universal collapse of the vital powers.* Dr. Parrish† in his strictures upon the term 'congestive,' remarks that Dr. Charles Parry, of Indianapolis, and Dr. R. G. Wharton, of Grand Gulf, have given the most correct account of this variety, as it appears in the localities where they respectively reside. Their account is as follows, and, somewhat modified, suits the character of the disease as it appears throughout the Southern portion of Alabama:

"General coldness of the surface, with a cold clammy perspiration upon the skin of the extremities, intense thirst, with precordial heat, bloody, or red, serous evacuations from the bowels, attended with but little abdominal pain, or tenderness on pressure, great irritability of stomach, with nausea, and frequently vomiting, with a weight and burning at the epigastrium. The respiration is irregular, sighing, and peculiar, and attended with a horrible sense of suffocation, which induces the patient to insist upon getting up, and going into

* Forry on Climate, page 287.
† American Journal of the Medical Sciences, for April, 1845.

the open air; great restlessness with surprising muscular strength throughout, the sufferer being able to rise from bed and walk about the room whilst he is pulseless. The tongue is most usually moist and covered with a dark brown or white fur, and the pulse, when it does exist, is thready and very frequent. The eyes are clear and pearly, and the intellectual faculties are retained with surprising pertinacity. In a large majority of instances, where the attack is ushered in by all or a larger portion of the foregoing symptoms, the powers of the system although unaided by any remedial means, will be found, sooner or later, competent to reaction from the first stage of collapse or chill; but as this form is subject to the general law of periodicity to perhaps as great an extent as any other grade of autumnal fever, twenty-four or forty-eight hours will find the sufferer plunged into another chill or stage of collapse, worse, if possible, than the first, and from which he will be recovered with difficulty."

The reaction, as a general rule, is feeble; the remissions, as remarked by Dr. Boling, "being indicated more by a tendency to the natural temperature, than by any decided mitigation in the other symptoms.*

Having never resided in autumn where yellow fever prevails, we have nothing to offer respecting this formidable scourge of our southern borders, further than what has been already advanced.

Treatment.—In this, the first thing to be done is to ascertain if possible what type the fever has assumed or is likely to take on, and until this is accomplished any plan of treatment must be of a doubtful, if not of a positively injurious tendency. As remittents may by judicious treatment be converted into intermittents, these, on the other hand, for the want of a correct understanding of their character, may assume the remittent, or even the more formidable congestive type.

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* American Journal for April, 1846, page 308.

Quinine seems of late to constitute no inconsiderable portion of the therapeutic means of many of our southern brethren. Unaided it can, in our opinion, be relied upon in intermittent fever only during the first two or three paroxysms, and not even then provided there be hepatic derangement, which is almost universally present at the commencement of most of our cases. Complications, too, of a local character early arise, requiring other means of cure.

Purgatives and the lancet will now have to be conjoined with quinine—the latter to be used according to the judgment of the practitioner, derived from the amount of local pain and other signs of inflammation. In a large majority of cases, in the first instance, quinine to arrest periodicity, and calomel and the lancet to break up local inflammations, will be found sufficient to give relief. But as this disease is peculiarly liable to return from slight causes, any irregularity in diet, or change in the weather being found sufficient to bring on a relapse, and as they sometimes under such circumstances induce at length a depraved state of the fluids, owing to which they continue to recur, a different plan of treatment becomes necessary. Quinine will no longer answer the purpose.

The blood requires to be renewed, and for this purpose *iron*, or some of its preparations, will be found preferable, associated with some vegetable bitter. The carbonate in pills, and the tincture of the muriate are the preparations which we have most generally used. In some very obstinate cases, and where a hebdomadal tendency was clear, we have effected some very remarkable cures by correcting the secretions with an occasional mercurial cathartic or two, anticipating the chill with quinine, and then, during the remission, administering some one of the preparations of iron. But where all these means fail, which is sometimes the case, and where dropsy or phthisis is threatened, we would advise a change of residence, and the adoption of such means as are best calculated to restore the deranged viscera to healthy action, and impart tone and vigor to the system.

We might here very properly make some remarks upon the treatment of congestive fever—*algid intermittent;* but as we have reserved this variety for a more particular consideration hereafter, we proceed to notice the other varieties. In these, the use of the lancet and mercurial cathartics, as a general rule, are much more imperiously demanded than in the preceding. The former we employ for the purpose of reducing arterial action, warding off local determinations, and relieving them when in existence. The latter we administer for the purpose of disgorging the liver and removing local congestions; and notwithstanding the odium which has been heaped upon *calomel*, we cannot but regard it as one of the most efficacious remedies in the treatment of fever. That it has been frequently abused we do not doubt; but this ought not to be urged against its judicious employment. So long as practitioners continue its administration in three and four grain doses, in combination with opium or some one of its preparations, hour after hour, and day after day, until mercurialization results, it must continue to be unpopular. It is, however, believed that better views are beginning to prevail with the profession, and that the fear of hypercatharsis and watery purging from ten grain or scruple doses of calomel uncombined, is fast giving way. That such doses are much more certain to produce free, consistent bilious purging, with much less danger of permanent injury to the system, we are thoroughly satisfied. We would then commence the cure of either remittent or inflammatory fever, where the pulse was full and tense, and the other attendant symptoms seemed to require it, with a free bloodletting, and the administration of twenty or thirty grains of calomel. The latter we direct to be carried off, if necessary, in the course of ten or twelve hours, by a dose of castor oil. After the operation of the first dose, the calomel should be repeated daily, or every other day, according to the urgency of the symptoms, the condition of the tongue and the effects produced. During this time, should slight pain or tenderness arise in

the abdomen, it may be very successfully combated by the application of warm mush or pepper poultices. Should the bowels incline to watery purging, ten grains of calomel in combination with a grain of the acetate of morphia, and the same dose repeated at the end of two or three hours, will generally be found to answer the ends desired. We make it a general rule, during the fall season, to check the operation of calomel with a dose or two of morphia, where there is the least disposition shown to watery evacuations. This course we consider indispensably necessary to the preservation of the strength of our patient. When the tone of the system is sufficiently lowered, and the secretions are established, which in remittent fever, in most cases, will take place in three or four days, quinine, given in ten or fifteen grain doses, will be likely to result in a complete solution of the fever. Although we agree that there is no absolute or fixed standard of symptoms necessary to constitute a remission, still in our experience it has only been in cases where the remissions have been clear and well marked, and where an evident tendency to a solution existed, that we have derived any decided benefits from the use of this remedy.

In the inflammatory variety, so far as our observation extends, quinine is but seldom if ever admissible. The type here is evidently 'continued,' requiring during the early stage, the liberal use of the lancet and mercurial cathartics, conjoined with the cold bath, affusion or sponging. For the intolerable pain in the head, cups between the shoulders, or to the temples, and cold applications, will be found to give considerable relief. We have also in some instances derived considerable advantage from the warm bath, which has reduced the pulse, softened the skin, and relieved the general restlessness more effectually than cold baths.

Congestive Fever.—In this type of fever, quinine, the cold dash, and mustard poultices are the leading remedies. As regards the use of quinine, our practice has been to give it in anticipation of the chill, rather than during its actual exis-

tence. We commence eight or ten hours before the expected cold stage, no matter whether it occurs daily or every other day, and give from five to six grains every hour or every two hours until twenty-five or thirty grains have been taken. This is generally attended with good effects. Sometimes in combination with each dose we give from the eighth to the fourth of a grain of the acetate of morphia, and from five to six grains of capsicum, and direct, at the same time, a strong tea of this article, which, in our hands, relieves the nausea to a greater extent than any other that we have ever tried.

The use of the *cold dash*, we are informed, originated in this State with Drs. Fearn and Erskine, of Huntsville, and may be safely practised after the following manner: The patient being first stripped and placed upon the floor, cold water is then poured upon him from a pitcher, or thrown with some force from a bucket all over the body. He is then wiped dry, placed in bed and well covered; from ten to fifteen grains of quinine are then administered.—Should warmth and natural perspiration not succeed in the course of one or two hours, the dash and the quinine are repeated and seldom fail to restore action. When there is hepatic derangement, or local inflammation, calomel in combination with quinine becomes necessary; and calomel, quinine and morphia are demanded where there is either a laxity of the bowels, or a disposition to serous evacuations.

The 'cold dash,' so far as we are informed, has been but little used by the physicians of Southern Alabama; but that it is a safe and valuable remedy, and entirely applicable in the first or second paroxysm of an algid intermittent, or in the stage of collapse early supervening in any variety of fever, we are thoroughly convinced. We would earnestly recommend it as well calculated to bring about reaction under such circumstances.

During the stage of oppression or collapse, the external application of heat by hot stones, or bottles filled with hot

water, together with frictions to the extremities and surface with dry mustard, and with capsicum in spirits, sinapisms and blisters to the spine and extremities, aided by the internal administration of the most powerful stimulants, have all been practised time immemorial. Dr. Baldwin, of this State, has recommended the application of mustard poultices in this condition of fever, and speaks in strong terms of their efficacy. (See this Journal for January, 1845.) Quinine and calomel are also administered in suitable doses, during and after their application, and the practice is represented as being attended with very good results.

Emetics during the fall season, owing to the irritability of the stomach and the disposition to collapse, we consider as positively contraindicated. Piperine is also considered objectionable on the ground that it is apt to irritate the mucous membrane of the stomach, and thereby add to the nausea and vomiting so often attendant upon fevers.

Of the other measures called for in the treatment of fever, we shall only remark that blisters, ice, cold water, and Dover's powder, are all remedies of great value in their proper place.

In conclusion, we would remark that the success of practitioners in the treatment of fever, will be in proportion to their judgment, experience, and power of adapting their remedies to the different stages of the disease. No physician possessing these qualities will adhere blindly to any particular plan, but will modify his measures so as to meet the exigencies of each case. It is not possible for any man long to pursue the practice of physic without having forcibly impressed upon him, that every new epidemic is a new problem, which he must solve. The plan of treatment pursued so successfully last year is found ineffectual this; and the one which, after many trials, has at length been adopted in the disease of the present season, may be unsuited to the disease which another season shall bring with it. The conclusion is, that the physician who is true to the high interests

of his profession must continue to be a student to the end of his days, carefully noting the varying phases of disease, and so shaping his remedies as to suit their altered characters. The foregoing remarks on autumnal fevers are submitted with a deep sense of their imperfection, but in the hope that something of practical utility may be found in them, and that they may afford aid at least to the young practitioner in his responsible duties at the bed-side.

November, 1846.

ART. V.—*A Notice of the Grayson Springs.* By LUNSFORD P. YANDELL, M.D.

The present proprietor of the Grayson Springs, in the summer of 1833, learning that quite a number of infirm people had gone to them in the woods, and were encamped about them in tents, was induced to purchase and improve them. It seems that, many years ago, they acquired, by some accident, a reputation for curative virtues; and this they have continued to enjoy. On a visit to the spings last summer, I met with a large company of invalids, and learned from many of them that they had not been disappointed in their hopes of renovated health from the use of the waters. I saw some lodged in hired cottages, near the springs, who were not able to pay for board at a tavern, and had brought with them their beds, provisions, and cooking utensils—a fact which testifies to the strong popular faith in the efficacy of these springs.

The springs, issuing within an acre of ground, are five in number, and, although differing in temperature, and slightly in taste, contain essentially the same ingredients. The Rock spring is the coldest; the Stump spring is so warm as to be unpalatable, and its water is chiefly used to supply the bath-house. The water of the Centre, Moreman, and McAtee springs has a pleasant temperature. Of these the latter is perhaps the favorite fountain. It takes its name from an

early visiter, a lady, whose health is said to have been restored by the use of its waters.

The following are the ingredients found in these springs:

Sulphuretted hydrogen,
Carbonic acid,
Carbonate of magnesia,
Carbonate of lime,
Carbonate of iron,
Sulphate of magnesia.
Sulphate of lime.

Sulphuretted hydrogen is the most characteristic constituent of the waters, and, with the carbonic acid, renders them light. The first effect of drinking them is an increase of perspiration; the bowels are generally gently moved, and the appetite and powers of digestion improved. To generalize, the action of the Grayson springs may be said to be gently tonic, laxative, and alterative.

These springs occur in a different formation from the other noted mineral springs of Kentucky; as they also differ materially from most of them in their constitution. Sulphate of magnesia is the most prominent ingredient in the Harrodsburg springs, which is recognised by its bitter taste; and although the same article is found in the Grayson springs it is in too minute a quantity to affect the taste of the water, which is sweetish. The Blue, Bigbone, and Drennon's Licks, the Olympian and Paroquet Springs, all abound in common salt, which is absent from the waters of Grayson. They all, except the Olympian, occur in the Blue Limestone, the oldest of our fossiliferous rocks; the Grayson springs are found in the Carboniferous limestone, immediately below the coal series. The stratum from which they issue is the same in which the Mammoth Cave occurs,—the *Pentremital* or uppermost layer of the most recent of our limestone rocks. In this rock, in the immediate vicinity of the springs, Pentremites, Archimides, and many new and most beautiful species of Encrinites, are found. The locality is one of exceeding interest to the geologist.

Louisville, Jan. 26th, 1847.

BIBLIOGRAPHICAL NOTICES.

ART. VI.—*Thoughts on the Effects of Age on the Human Constitution. A Special Introductory.* By CHARLES CALDWELL, M.D., &c.

Lecture on Obstetrics and the Diseases of Women and Children. By GUNNING S. BEDFORD, M.D,, Professor of Obstetrics and the Diseases of Women and Children in the University of New York.

The elaborate lecture of Professor Caldwell opens with the following remarks:

"The vital condition is not only *divisible;* it is actually *divided*, *by nature* herself into *two forms*—a *latent* or *dormant*, and an *overt* or *active* one. Of these, the former shows itself in vegetables, especially in their *seeds*, and in multitudes of species of the lower orders of animals, when in a state of hybernation. It is a well known fact, that many of these forms of living matter have continued in a condition of *dormant vitality* for hundreds and thousands of years. And to prove that they positively *were* in that condition, they have been subsequently awakened to *active* vitality by suitable stimulation. There are now *peas* and *wheat*, in certain parts of Europe, the products of seeds discovered in Herculaneum, where they had lain dormant for nearly *two thousand*, and in the catacombs of Egypt, where they had lain in a like condition, upwards of *three thousand* years. And, had those seeds not been in a *vital* condition, during this protracted perion, I need, hardly add, that they could not have been roused into *overt* life, by *any* kind, or *all* kinds of stimulation that could have been employed for the purpose. Even an *attempt* to stimulate *dead matter* would involve an absurdity. Nor, had they not been held together by the *vital principle*, would they have retained their form a twentieth part of the time that they *slept in their dormitories.*"

Man knows nothing of this dormant condition; active vitality belongs to him. and from its commencement to its close his life "exhibits an unbroken chain of ceaseless action and ceaseless change." But this change occurs only in his material frame, his mind remaining unchangeably the same through every period of his life. from infancy to old age. And yet the mind seems to change. It is feeble in the new-born child, strong in manhood, and again sinks into imbecility with advancing years. "The reason of these changes in mental manifestations does not consist in any alteration in the mind or spirit itself; but in an alteration in the body, the instrument on and by which alone the mind operates *in all* sublunary concerns."

The life of man consists of a number of periods, the characteristics of which are severally pointed out in the lecture. We quote the remarks of the author respecting the first of these periods:—

"At the commencement of their *uterine* period the elements of the future man can hardly be said to possess real solids or real organization. The *germinal vesicle* and the *embryonic cell*, together with all that immediately surrounds them, are nothing but specks of mucus or gelatin, without any shape that can be called *significant*—significant I mean of the figure and character of the being they are to produce. But they are *living* gelatin, and possess a plastic power which it would be hardly extravagant to denominate *marvellous.* It is certainly one of the most singular and striking that is in any case exercised by living matter. It is to this effect.

"The elements of the embryos of all kinds of animals are precisely alike. At least they resemble each other so accurately, that the ablest minute anatomist and observer, armed with the best microscope ever constructed, cannot distinguish one of them from another. The germinal elements of the fish, the reptile, the bird, the quadruped,—and even of man, appear to be *identical* in form and composition, and nearly so in size. Yet do they, in the progress of their development, put on each its generic and specific form, and exhibit its corresponding instinct and qualities. The fish swims, and lives and acts conformably—the reptile crawls — the bird

flies—the quadruped walks, runs, and leaps—and man stands erect, with his "*os sublime*," and manifests the superior attributes of his superior organization. Of the vegetables the same is true. Their germinal elements appear to be *identical.* Yet do they put forth in time products marked by that infinite diversity of shape, size, color, taste, and smell which characterizes the countless hosts of the vegetable kingdom."

Of all the periods, decadence is the only one not fixed by nature. Happily, this is left somewhat to our control.—"Each man that enters it," says the lecturer, "is so far master of it that he can either protract or curtail it to an important extent." The author has allusion rather to the mental than the corporeal powers; and yet by temperance, he insists, and insists correctly, the physical decay of man may be averted much longer than it usually is.

Professor Bedford's lecture, although introductory, discusses practical questions of the gravest import, of which the following quotations afford fair specimens:

"Another common error in practice is to impute the various ailments of the female to *falling of the womb;* and hence, if we are to credit what is said on this subject by certain practitioners, *falling of the womb* is the true cause of all female complaints. It would, indeed, be much nearer the truth to affirm that this affection is very commonly the result of carelessness on the part of the physician in not detecting at an early period, a disease of the cervix of this organ, which, by being suffered to progress, terminates in chronic engorgement, thus causing the uterus to descend, and producing a veritable prolapsion. It has been shown by Lisfranc, to whom the profession is under deep obligations for the light he has thrown on the causes and treatment of affections of the womb, that *prolapsus uteri* is rarely a primary disease, but usually consequent upon enlargement of the *cervix*, which, by its increased weight, pulls the uterus into the vagina. With this simple explanation, which undoubtedly is based on facts, it must be evident that the very means usually resorted to for the cure of falling of the womb, are the direct agents of mischief—they not only do no good, but are positively injurious. Every medical man, who possesses a

proper knowledge of his profession, is well aware that this disease is extremely rare among unmarried ladies. What, therefore, must be the character of a practitioner, who can see no other cause for the sufferings and ill-health of a young lady, than *falling of the womb*, and consequently subjects her to the most cruel and unjustifiable examination. I have heard of several young creatures in one family, averaging from sixteen to eighteen years of age, condemned to this most shameful desecration of their persons.

"During the last winter, I was requested to visit professionally a married lady from the State of New Jersey. The history of her case was simple and to the following effect:—In June, 1842, she experienced uneasiness in the region of the womb, and slight pain in passing water. There was more or less discharge of mucus from the vagina, and sexual intercourse occasioned at times great distress. These were the incipient and only symptoms of her malady. A physician was consulted, and immediately pronounced the disease *to be falling of the womb*. Pessaries were introduced —abdominal supporters applied, but without affording any relief to the suffering patient; whilst, on the contrary, the pessaries tended to aggravate the pain by the pressure they exerted on the seat of disease. Another practitioner was consulted, and reiterated the opinion already advanced.—Having continued under his care for more than ten months, without deriving the slightest benefit, and experiencing a positive increase in her sufferings—the pain and difficulty in passing water becoming more aggravated—she resolved to visit the city of New York in search of professional advice. She arrived here in December last, and I was requested to see her. On hearing the history of the case, I frankly told her that I did not believe she had *falling of the womb*, for the simple reason that her symptoms were not characteristic of any such ailment. I proposed an examination which was cheerfully consented to, as the lady was most solicitous to obtain relief. The uterus I found in a perfectly healthy condition and in its normal position. In passing my finger along the *urethra*, the patient experienced a sensation of pain, and this circumstance, together with the difficulty of which she complained in passing water, attracted my attention especially to this point. I could detect no disease in the uterus or vagina; in attempting to introduce an ordinary female catheter into the urethra I was completely foiled; and, on minutely examining the condition of this passage, I discovered that the lady's sufferings were entirely due to a *stricture*

of the urethra. *Stricture of the female urethra* I had never seen previously to this occasion; and, as far as my knowledge extends, no case of the kind had ever occurred in this country; at least, no record has been made of it. Velpeau, in his great work, cites but three cases of *stricture of the female urethra*, and remarks that its occurrence is extremely rare. In the course of three months, I succeeded in removing the stricture, and the lady returned to her home entirely restored to health.

"On the 10th day of last July a lady, residing in this city, sent by note a request that I should pay her a professional visit. She informed me that, for the last few months, she had been under the care of a practitioner who pronounced her to be laboring under falling of the womb—that he had on one occasion introduced an instrument, (a speculum, I imagine,) which gave her so much uneasiness that, in twelve hours afterwards, a miscarriage was the consequence. I was also informed by the lady that she had been under the necessity of calling repeatedly at the house of this practitioner, his engagements being so numerous that he could not find time to visit her. She had faithfully observed all his directions, but received no benefit from his treatment. In my first interview with this patient, after hearing the above statement, I requested her to give me a full account of her symptoms. She remarked that since the birth of her last child, about twelve months since, she experienced great irritation about her bladder—her nights were much disturbed by more or less desire to pass water—being obliged to leave her bed more than a dozen times during the night. The irritation of the bladder had entirely disfranchised her from all social intercourse—and she could not with any degree of comfort leave her house. This state of things had continued without any palliation to the time of my visit, and her sufferings had produced an evident inroad on a constitution otherwise vigorous. I then asked her if her last labor had been unusually protracted, or whether she had experienced at the time any difficulty about the bladder. To which she replied that her labor was natural and of short duration—but the doctor, who attended her in confinement, in attempting to introduce a catheter into the bladder for the purpose of drawing off the water, gave her much pain, and caused a slight discharge of blood, unaccompanied, however, by any flow of urine. This was all the information I obtained from the patient, and I think you will agree with me that there was nothing in the case to justify the suspicion that her diffi-

culty was attributable to *falling of the womb*. On examination, I found the womb entirely free from disease, and in its natural position. I detected just within the *meatus urinarius* a small ulcer, which was most probably the result of injury inflicted by the catheter. This ulcer I regarded as the only cause of her suffering, and informed the lady with great confidence that in a few days she should be restored to health. On the following day, assisted by Dr. Trantham, of South Carolina, in whose presence the above statement was repeated by the patient, I touched the ulcer with the nitras Argenti—ordered mucilaginous drinks—and, on the fifth day after the operation, she took a long walk without inconvenience: to the present period she has never experienced the slightest irritation or pain about the bladder. Her health has continued excellent, and she is at this time in the sixth month of gestation."

The printers have taken unpardonable liberties with Dr. Bedford's manuscript, as they sometimes do with ours, inserting a letter or changing one, it would seem, simply to please their queer fancies. These are among the small vexations of editors and authors.

ART. VII.—*Researches among the Protozoic and Carboniferous Rocks of Central Kentucky, made during the summer of* 1846. By D. D. OWEN, M.D., and J. G. NORWOOD, M.D. St. Louis. 1847.

With a view to clear up some doubtful points in Western Geology the authors of this pamphlet made an excursion, during the last summer, from Nashville, through the central counties of Kentucky, to this city. Leaving Nashville, which stands on the same formation which immediately underlies Lexington and Cincinnati, they passed through Gallatin, in Tennessee, and thence through Scottsville, Glasgow, New Haven, and Bardstown, in this State. The surface rock at Nashville is continued on to Gallatin, and, no doubt, into the fine region about and above Hartsville. This is the Blue limestone, the basis of our fossiliferous rocks, and belongs to the "*Silurian*" sys-

tem—a term derived from "Silures," the principal tribe of Celts or ancient Britons, who occupied part of Wales and the bordering counties of England, where these ancient fossiliferous strata are most distinctly exhibited. (Lyell.) Wherever this rock comes to the surface the soil appears to be of a superior quality. It has two axes of elevation, one of which is at Nashville, and the other at Cincinnati. It is in this rock, as we have mentioned in another article, that the saline springs of Kentucky are found. At Nashville there is a spring impregnated with the same substances.

The Grey or Cliff limestone, which is so conspicuous on the Falls of the Ohio, and which increases greatly in thickness towards the north, in Tennessee is a very inconsiderable formation. It thins out to a few inches a short distance beyond Nashville, and is not met with in coming from Gallatin towards Scotsville until you approach the confines of Kentucky. This rock, at the Falls, in the opinion of Mr. Verneuil, is divided between the system spoken of, the Silurian, and a newer system, the *Devonian*, so called from a county in England—the lower strata belonging to the former, and the upper, probably from the one containing the Catenipora, to the latter. This system embraces also the Black slate, which is seen soon after you begin to ascend the ridge fifteen miles north of Gallatin.

Above the Black slate the "Encrinital" limestone of Dr. Troost is found, in the same position which it occupies at the Button-mould Knob near Louisville. With it, it will probably be determined, the "Carboniferous" system commences —so called for the reason that it is always above these rocks that coal is found. The carboniferous, or as it is sometimes called, the Mountain limestone, is spread over the Barrens of Kentucky. It is in this formation, and in the upper layers of it, that the Mammoth Cave has been wrought out. The Grayson Springs, as we have said, occur in this formation.

It may be a matter of inquiry with some readers, how the geologist is enabled to determine the relative ages of rocks, and assign them to their proper systems? The or-

ganic remains found imbeded in the strata furnish the clue. In the Silurian rocks of England a certain group of fossils have been found; these fossils do not extend into the strata above; the animals appear to have become extinct with the sedimentary deposit which formed the rocks of the Silurian system. When the geologist in Russia or America meets with fossils of the same group—meets, as he often does with fossils of the same identical species—he recognizes the strata as belonging to the same system. We shall not soon forget the pleasure evinced by Mr. Verneuil when we showed him the *Phillipsia*, which we had found in the "Encrinital limestone," and which at once established in his mind the rock as belonging to the Carboniferous system. Our friend, Dr. Shumard, traveled from Louisville to Nashville, last summer, over the same region explored by Drs. Owen and Norwood, a short time before these gentlemen set out on their expedition; and by his knowledge of paleontology he was able to define the position of the various strata. We have now in our possession his letters to us describing the succession of systems as he advanced towards Nashville, just as they are exhibited in the satisfactory and interesting section of Drs. Owen and Norwood.

This ardent young geologist has ascertained that fifty of our Louisville fossils are identical with European species, principally Russian; and that one, the Calymene Blumenbachii, is found in Tennessee, Kentucy, Ohio, New York, in England, Belgium, Germany, Russia, and in Asia and Africa.

Fossils have been beautifully styled "medals of creation." They speak to the paleontologist an intelligible and impressive language. He reads in them the comparative antiquity of rocks and mountains. They disclose to him the first vestiges of animate creation, and the point at which races of beings ceased to exist, and new races came into being. But they also communicate to him practical knowledge. Coal, as we have remarked, is never found under the mountain limestone—the pentremital layer; the geologist knows that it useless to sear t below the *Pentremite* and the *Arnedes*.

Let us not be charged, in these geological notices, with wandering from our profession; geology has important relations to medicine. Has it never come into the mind of the reader, how closely connected certain causes of disease are with the soil? One day, last spring, we were fossilizing on the upper beds of our Cliff limestone just where it disappears under the Black slate, and stopping at the spring of an intelligent farmer whose land extended to both formations, it occurred to us to ask him on which side was there most sickness among his neighbors. His reply was, as we were prepared to hear it, that they were much more sickly to the west. This was in the region of the black slate. The "Pond Settlement" below Louisville, the sickly character of which is well known, is upon the same rock. The black slate appears to be the favorite abode of fever and ague.

But another fact bearing upon the relations of geology to medicine has occurred to us, in casting our eye over the formations in the valley of the Ohio, and that is, that epidemic cholera, in its sweep over us thirteen years ago, was most fatal in those regions where the Blue limestone is the surface rock. We would cite Lexington, for example, in comparison with Louisville, and the small towns in that quarter of the State as compared with the villages in the Green river country. From Cincinnati to Harrodsburg it is blue limestone, and the malignity of the disease in all that region will long be remembered. At Nashville the same rock reappears, and in some towns in that part of Tennessee the mortality was as great as in any place where the epidemic prevailed. We do not know that there is any value in these facts. The coincidence may have been accidental, but it strikes us as, at least, curious, and worth adverting to. Certain it is that our chances for obtaining a knowledge of the causes of disease will be increased by some attention to geology.

We have read the "Researches" with great pleasure, and hope its authors will be encouraged to pursue their interesting labors, by which they are acquiring reputation, and science many instructive facts.

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

Division of the Stricture in Hernia.—The following remarks are made by Mr. Brown: It was remarked that in the above case the division of the stricture was directly upwards, which is according to the rule of the schools; it may not, however, be irrelevant to add, that in all cases of abdominal hernia,—ventral, umbilical, inguinal, and *femoral*,—I always divide the stricture directly upwards. This mode of dividing the stricture in femoral hernia is not according to the doctrine generally taught. In inguinal hernia, the seat of stricture is always the neck of the sac, formed either by the internal ring only, or, as in old hernia, by both the internal and external ring. The division of the stricture, therefore, in all cases directly upwards, will be sure to avoid the epigastric artery. In femoral hernia, we are usually taught to divide the stricture upwards and inwards, or directly inwards, to cut Gimbernat's ligament; but by the adoption of this mode, if the obturator artery should chance to rise from the epigastric, and take its course along the margin of Gimbernat's ligament, it might be wounded by the most skilful operator. I once knew this to occur, and as the hemorrhage was excessive, the surgeon with great promptness tied the external iliac artery, which immediately arrested it. Besides, the true seat of stricture in femoral hernia is not in Gimbernat's ligament, but in the "thin fibrous band which crosses the vessels beneath Poupart's ligament." By cutting this "thin fibrous band" directly upwards, "the ring becomes instantly flaccid," and the hernia is readily reduced.—*Lond. Lancet.*

On the Digestion of Alcoholic Liquids and their operation in Nutrition; with Hygienic Applications.—M.M. Bouchardat and Sandras, and M. B., alone, have presented some interesting *memoires* on these subjects to the French Academy of Science, from which we will give extracts, as follows:

The first part of the digestive process, which consists in a dissolution, is wanting, with alcoholic drinks, as it also is with fatty substances. Alcoholic fluids undergo no other alteration, in the digestive apparatus, than dilution with the gastric juice and mucus, saliva, and the other liquids which are poured into the digestive organs.

The absorption of alcoholic drinks is effected, as has already been proved by Magendie (*Physiologie*, 3d edition, p. 187,) by the orifices of the veins. It is particularly in the stomach that this absorption takes place: when alcoholic drinks are administered in great excess, or mixed with sugar, this absorption may continue throughout the rest of the intestines.

The chyliferous vessels do not aid in the absorption of alcoholic drinks; after their ingestion the chyle may be very abundantly collected, if these drinks have been given with the fatty aliments: in this case the chyle does not contain any appreciable trace of alcohol.

When alcoholic drinks are introduced into the torrent of the circulation, the alcohol is not eliminated by any of the secretory organs; a small quantity only is evaporated by the lungs, and may be collected with the gases and vapors which are continually exhaled by that organ.

If alcohol is introduced into the circulatory apparatus in too great quantity, the arterial blood becomes of the color of venous blood, and the alcohol may occasion all the accidents of asphyxia.

The alcohol under the influence of the oxygen, which is incessantly introduced into the economy by respiration, may be converted into water and carbonic acid; but, in several of our observations, we have obtained an intermediate product of combustion,—*acetic acid.*

Alcohol and its products rapidly disappear from the economy. When it is introduced simultaneously with grape-sugar or dextrine, its destruction is more rapid than that of these latter bodies.

The Comparative Action of Alcohol on different Animals.—When introduced into the torrent of the circulation—it is there that the principal action of oxygen takes place—and

the blood globules, being deprived of this vivifying principle, cannot acquire their vermillion color; they are asphyxiated, and if the quantity of alcohol is large the animal dies as though it had been plunged into air deprived of oxygen. The carnivora, as the dog, whose stomach is voluminous compared with the rest of the digestive apparatus, are very sensible to the action of alcohol, and may be killed by a moderate dose; for it is rapidly absorbed without passing beyond the duodenum. The herbivorous gnawers, as rabbits, are also killed by a small quantity of alcohol, for absorption in the stomach is very rapid; alcohol is not to be found in their intestines. The graminivorous birds, such as the domestic fowl, can support large doses; the cavity of their stomach is limited; that organ is furnished with strong muscles; alcohol which is ingested does not remain there: it may be found in the intestines; it is from thence transported to the liver by the venæ portæ, and then gains admittance slowly into the great apparatus of the circulation. Fishes can live at the temperature of 56° centigrade, in water containing the half of one per cent. of alcohol.

Influence of Alcoholic Drinks on the Secretion of Urine.—My experiments lead me to admit that, under the influence of a large quantity of alcoholic drinks, the amount of urine rendered in the twenty-four hours is diminished; the same is the case with the absolute quantity of urea; the uric acid, on the contrary, is excreted in larger quantity than the normal proportion.—*Comptes Rendus. Tome.—W. Lancet.*

Alkalies in the Treatment of Hooping-Cough.—Dr. Allnat, of London, attributes the spasmodic action of the glottis, which occurs after the febrile action has somewhat subsided, to the presence of acid in the stomach; to relieve which alkalies—ammonia, carb. potass, &c.—are advised. He says:

After preliminary purgation with calomel, (conjoined with antimony, if the febrile symptoms run high,) and an occasional emetic to clear the stomach, nothing in my experience is so efficacious as small and repeated doses of the carbonate of potassa. The following combination has been extensively distributed to the poor in seasons when hooping-cough has raged as an epidemic, and I can attest the almost invariable success which has attended its administration—what portion of the merit is due to the cochineal I do not know:—Take of

carbonate of potassa, one drachm; cochineal, ten grains; boiling water, half a pint. For an infant, one teaspoonful to be taken thrice daily, the dose increased according to age. *London Lancet.*

Artificial Somnambulism in Pennsylvania.—Doct. William B. Fahnestock, of Lancaster, Pennsylvania, has published an article on Mesmerism, or as he terms it, "artificial somnambulism," which will stagger the faith of most christians. Can a man be sane who believes such assumptions? We offer a few extracts as follows:

1. That I consider this condition to be identical with somnambulism, differing only in the manner in which it is produced; somnambulism being the natural state, and this the artificial.

2. That this state is independent of magnetism, electricity, galvanism, sympathy, a nervous fluid, or anything of the kind.

3. That subjects are at all times independent of the so-called operator, in every sense of the word, when they are acquainted with the true nature of the state before they enter it.

4. That it is possible for *any persons* to throw themselves into, or out of, the state, even in an instant, when they have been taught how to effect it.

5. That subjects can be taught to throw themselves into this state, a single finger, a hand, an arm, or any part of the body, independent of the rest, by an act of their own will, at any time they may please, and relieve themselves at pleasure!

I have taught hundreds to do so—but it may not always be prudent for them to enter this state independent of an instructer—for *some*, upon entering the condition for the *first time*, become unconscious of all that is passing around them; and if such persons were to throw themselves into it independent of any one, and had not consented or made up their minds before entering it, to hear or to speak to some one, it is most likely that when in it, and spoken to, they would not hear any one; and in all probability would sleep for a longer or shorter time, without doing anything, and when they did awake would remember nothing, and scarcely know they had been in it at all. Or they might get up and wander about, as is sometimes done by natural somnambulists, and unknow-

ingly get into difficulties or meet with some accident, which might not be very agreeable when they awoke. It is, therefore, always better for those who wish to enter it, to place themselves under the care of some one; and he who understands the nature of the state best, and has had the most experience in its management, is the best calculated for this purpose. When they have entered the state frequently, and have had the proper instructions while in it, the case is very different; they are then able to move about with as much certainty and safety as if they were awake.

6. That when in this state they can hear, see, smell, taste, feel, &c., as well as when awake, whenever they are so disposed; or they can hear or not, see or not, smell or not, taste or not, feel or not, contrary to the will of any one, whenever they may think proper.

7. That they cannot be made to do any thing they are not willing to assent to, and are as much themselves as when awake.

The following case of parturition is given:

She, being clairvoyant, then threw her mind to a distance, and while engaged looking at various objects of interest, passed through the rest of her labor without feeling the least pain—even the last and severe contractions of the uterus, gave her no pain whatever. She was delivered of a large male child, about half an hour after she entered the state the second time. After the child was born, and the placenta was about being removed, considerable hemorrhage ensued—but was immediately arrested by frictions with the hand over the region of the uterus, until the contractions were renewed and the placenta expelled. The frictions over the uterus, which were necessary in this case to renew its contractions, gave her no pain whatever. The same, under ordinary circumstances, every physician knows full well, are scarcely to be endured.

Mesmerism advances in mystery; patients are *now* taught, not only to *diagnose* their own disease, but to *remove* them by *willing* that they shall cease! The following extract presents this supremely ridiculous assumption:

The extent to which I have employed somnambulism in diseases has been very considerable; but the state itself, or the mere being in that state, will produce no relief, if the mind of the subject is not made sensible of the fact, and placed upon the disease. This is an important point, and

accounts for the many failures which have hitherto occurred. It is always necessary to get the patient to fix his mind upon his disease, and to make a resolution while in the state that it shall cease to exist when he awakes, &c. It is no matter whether the patient does this of his own accord, or by the advice of his instructor, so that it has been done properly. The effect will be the same, and always in proportion to the determination, &c., he may have exercised.

A very happy illustration of this fact took place last winter while I was in the city of Philadelphia. Dr. Childs, of that place, had been endeavoring to effect a cure in the case of a young lady whose foot (I think from some disease), was drawn or thrown completely round, in a direction precisely opposite to the natural condition of that member. He had been operating in the usual method for some time before I visited the city. He attended a course of my *private lectures*, which were delivered in Dr. Noble's parlors, where he stated the young lady's case to me, and requested to know whether I could suggest any thing for her relief. I at once told him that if he would abandon the old method and divert her mind to the foot, and get her to make a resolution while in the state, that the foot should assume and keep a natural position when she awoke, he could effect it in five minutes. On the following day he succeeded in getting her to do so, and brought the young lady round to Dr. Noble's the same evening, perfectly restored. She was then able to keep the foot in its natural position, and during the evening walked and ran about as well as ever, a blessing which she had been unable to exercise for a long time before. I have no doubt that Drs. Childs and Noble will take pleasure in confirming my statement. The case was notorious in that part of the city, and the cure by many was considered scarcely short of a miracle.—*Boston Med. and Surg. Jour.*

Obliteration of the Œsophagus.—Prof. Levy, of Copenhagen, relates two cases of this malformation, in the *Neue Zeitschrift fur Geburtskunde.* The first case was that of an infant, apparently healthy when born, but which was unable to suck, and rejected everything that was administered to it. The day after birth a catheter was introduced into the œsophagus, but was arrested at a depth of four inches. Milk injected through the catheter was immediately returned by the nose and mouth, producing symptoms of suffocation. Closure

of the œsophagus was accordingly diagnosticated, and some broth was injected into the rectum. At the period of its birth, the infant weighed six pounds and a half; forty-six hours afterwards it only weighed five pounds and a half; fifty-eight hours after, it weighed five pounds and a quarter; seventy hours after birth, it weighed five pounds and an eighth; eighty-two hours after, five pounds. The infant died eighty-three hours after birth. The child lost, therefore, during four days, one pound and a half in weight, half-a-pound being the loss during the last two days. The urine and feces presented a natural appearance; they were passed at long intervals, and scarcely exceeded the weight of the broth injected. On post-mortem examination, the upper portion of the œsophagus was found to terminate in a cul-de-sac, in which the catheter introduced by the mouth, was arrested. This sac was about an inch long, and twice the size of an ordinary œsophagus. The structure of the muscular fibres presented nothing abnormal, except that they converged towards the truncated extremity of the tube. The inferior portion of the œsophagus was connected with the trachea and larynx; so that a catheter introduced through an incision in the cardiac extremity of the stomach, passed through the trachea and larynx into the mouth. The communication between the trachea and the œsophagus took place about a line below the bifurcation of the trachea, and was formed by an oval opening, three lines long and one line wide. The posterior wall of the air-duct and the respiratory mucous membrane were continuous with those of the digestive canal. In the second case, the fœtus was born before the full period of gestation, and died immediately after birth. In this case, Profesor Levy found, besides several malformations in the region of the pelvis, that the upper part of the œsophagus terminated in a cul-de-sac, and that the lower communicated with the right bronchus. The communication of the tube with the trachea differed from that in the former case, inasmuch as the œsophagus contained some cartilaginous rings in a part of its extent. With the exception of the case of Martin, republished in the pathological anatomy of M. Andral, Professor Levy has never seen any other examples of this malfomation than those just related. These cases support the opinion of those who regard monstrosities as arrests of development.—*Med. Times.*

Method of Operating in Excision of the Cervix Uteri. By Dr. Simpson, of Edinburgh.—In performing the excision of the cervix uteri, in the three instances I have detailed, and in the other cases in which I have operated, I have proceeded on the following plan:—I have fixed one or two vulsella into the outer or vaginal side of the diseased cervix, as high as it was possible to insert them, and, by the purchase which they afforded, have gradually and cautiously dragged this part down in the lines respectively of the axis of the pelvic brim, cavity, and outlet, till it appeared so far beyond the vulva as to allow me to cut through the base of the protruding cervix. In one or two cases I used a knife in making the incisions. But in consequence of the powerful retraction under which the cervix uteri is placed during the operation, it is difficult, or indeed impossible, to make the incision in this way so equable and perfect as to remove with certainty all the diseased part. After a partial cut or two the uterus is strongly retracted at the points of incision, and the remainder of the operation requires to be finished with the line of incision thus rendered irregular and confused. A pair of large, curved, blunt-pointed scissors, such as were used in this operation by Osiander and Dupuytren, is in this respect preferable. We are enabled by them to surround and embrace the whole cervix at once; and having cautiously and carefully adjusted their edges to the very points which we wish to divide, and thus calculated, at this preliminary step, the exact limits of the incision, we may then immediately complete the amputation of the part, by one or two strong and rapid strokes of the instrument. The blades must be placed around the cervix, *above* the line of the teeth of the vulsellum; and then our object is (as it were) to cut out the vulsellum along with the whole inferior and diseased part of the cervix, in which it is fixed. The operation is much facilitated by the labia being strongly pressed aside by broad copper spatulæ.

I have always placed my patients upon the face, the body being situated across the bed, and the lower extremities hanging over it, as in the operation for hæmorrhoids. We are thus enabled to make our incision through the cervix uteri from behind forwards, instead of from before backwards,—a matter, in my opinion, of no small moment. For if we cut in this latter direction, viz., from *before backwards*, we would sometimes run a greater danger of opening into the peritonæum, which stretches downwards so much more behind than in front of the cervix uteri, and offers a very thin wall of partition between the cavity of the vagina and the cavity of the

abdomen. Latterly, I have found the first portion of the operation, namely, the seizure and traction of the cervix uteri, much facilitated by using a very large and strong vulsellum, made with the common loose joint of the obstetric forceps, instead of the usual fixed pivot or scissors joint. With the common scissors-jointed vulsellum, whilst we are intent on fixing the teeth of one blade in a proper situation, the teeth of the other blade are always apt to become entangled in the tumor or walls of the vagina itself, and thus impede and embarrass the operator. But with the modification of the vulsellum that I have alluded to this difficulty is avoided, for the individual blades are introduced, adjusted, and fixed, separately and successively; and then, afterwards, they are easily united together for further use. Besides in this way, we far more readily effect what are, I believe, the two principal secrets in the operation, viz., 1st.: We fix both blades of the instrument, and more especially that corresponding to the diseased lip, as high upon the cervix, and as near its line of reflection upon the roof of the vagina as possible; and 2ndly, by making our line of incision immediately above the hold of the vulsellum (as if our object were to cut out that instrument and the part which it embraces), we secure this important point, that the incision which we make is more likely, than if we followed any other plan, to pass through a stratum of healthy tissue, as we thus inevitably remove the whole vaginal portion of the cervix uteri, and the diseased structure of which it is the seat. In thus attempting to insert the vulsellum as high as possible in the cervix, we will succeed far better by guiding it directly to the point required by the finger and the sense of touch, than by attempting to direct it by the speculum and the sense of sight. In fact, if the cervix is, as generally happens, at all much increased in size, it is, of necessity, utterly impossible to see, with any speculum, the part in which the teeth of the vulsellum should be fixed,—that part lying much higher than the sphere of vision.

Several forms of danger have been found to attend upon excision of the cervix uteri. A fearful variety of nervous depression is alleged by some authors to supervene occasionally upon the operation. I have seen no instance of it. Severe hæmorrhage sometimes occurs, but it is much rarer than we might *a priori* expect. In only one case have I met with it in any considerable amount, and in that instance it was readily and effectually restrained by the plug. Out of nineteen private patients operated on by Lisfranc, Pauly avers that four died within twenty-four hours. Subsequently there is

further danger to the patient from inflammation kindling up in some of the uterine structures, or in the peritonæum itself. Out of the eight cases in which I have operated, seven recovered perfectly. The remaining eighth patient recovered so far as to leave her bed-room, but was then, from an unfortunate domestic quarrel, subjected to great mental excitement, after which she relapsed, and died under symptoms resembling those of phlebitis. In his Operative Medicine, Velpeau, after stating that he had himself only operated in two cases, in one of which death occurred in three days, and in the other six weeks after the excision of the cervix, proceeds to remark: "A patient operated upon by M. Blandin died of uterine phlebitis; one of those that Lisfranc lost was carried off by peritonitis; others have sunk under a nervous state, the gravity of which it is not easy to explain. Up to the present time," he continues, "scarcely any one has been seen to die directly of hæmorhage. Rust and Graefe of Berlin, Roux and Dupuytren, who have all seen their patients perish from the immediate results of the operation, do not ascribe the fatal result to this complication (hæmorrhage). Excision of the neck of the uterus, although easy and by no means severe, is nevertheless sometimes extremely dangerous and speedily fatal. However, Osiander has practised it twenty-eight times, Dupuytren fifteen to twenty times, and Lisfranc forty to fifty times, without it having caused death more than once out of every six or seven operated upon."

Cases adapted for the operation.—Since excision of the cervix uteri is an operation attended with so many chances of danger, as Velpeau exposes in the passage which I have quoted, it evidently follows that it should only be adopted in cases, and under circumstances, in which milder and safer means of cure are insufficient. The forms of disease in which, upon this principle, it seems justifiable to avail ourselves of the aid of this operation (supposing no contra-indication to be present), are, in my opinion, principally:

1st. Great morbid hypertrophy, by elongation, of the vaginal portion of the cervix uteri. I have operated succesfully in two such cases.

2nd. Corroding ulcer, when limited to the lips of the cervix, and pathologically identical with the form of lupus or malignant ulcer so well known on the face; and

3rd. Circumscribed and local forms of carcinomatous disease or excrescence, of the lips and lower segment of the

Some continental surgeons, and more especially Lisfranc, advocate the propriety and necessity of excision, in various other cases besides those I have just enumerated. I have myself twice excised the part when affected by chronic induration and thickening, without carcinomatous degeneration; but I would now, most assuredly, by no means resort to it again under the same condition, as I believe that morbid state of the cervix to be quite removable by milder measures. In the case that I have alluded to as having terminated fatally, the structure of the excised cervix presented a great degree of condensation and induration, with two small cystic tumours enclosed in the morbid tissue. The symptoms attendant on this lesion had been of very long standing, and had previously broken down the health of the patient.

Certainly, however, the set of cases in which, of all others, the operation is likely to prove an occasional and important addition to our previous means of treatment, is that in which there exists local carcinoma of the cervix uteri.—*Dublin Quart. Jour. Med. Sci.*

Mortality from Cancer in England, as regulated by Sex.

Year of Report.	Total fatal Cases of Cancer.	In the Female Sex.	In the Male Sex.
1838	2304	1717	587
1839	2549	1924	625
1840	2238	1656	582
1841	2215	1692	523
1842	2356	1757	599
Total,	11662	8746	2916

Ibid.

Electricity in Disease. By Mr. Donavan, of Dublin.—The first attempt at rendering electricity available in the alleviation of human suffering was made by Kratzentein, in 1744, who tried it in several diseases. Shortly afterwards, a number of works were published on medical electricity, containing, with some truth, many fictitious and marvellous accounts: all this might be expected.

Signor Pivati, of Venice, published, in Italian, an Essay on Medical Electricity, in which he narrated many wonderful things. He included balsam of Peru in a glass cylinder, so

closely that there was not the least smell from it. With this cylinder he electrified a person who had a pain in his side; the man went home, went to bed, slept. sweated, scented the bed, his clothes, and even his hair, to such an extent that even the comb smelt of the balsam. Another person, electrified in a similar manner, became in half an hour more lively and cheerful than usual: the company perceived a smell for which neither he nor they could account, until at length he discovered that it proceeded from himself. By electric exhalations Pivati cured amenorrhœa. He had also the honor and pleassure of curing Donadoni, Bishop of Sebenico, aged seventy-five years, of gout. The Bishop came with his physician and friends; the disease had stiffened his fingers and knees so that he could not bend them; he was obliged to be lifted into bed every night. Pivati filled his cylinder with discutients, and with it electrified his reverend patient. In a few minutes the Bishop felt an unusual commotion in his fingers; he was relieved; he opened and shut both his hands, and gave a hearty squeeze to one of his servants: he rose up, walked, smote his hands together, helped himself to a chair, sat down, walked down stairs with the agility of a young man, and was so amazed that he thought it must be a dream. In the same manner a lady aged 60, with fingers swollen by the gout during six months, always trembling, and with one arm convulsed, was fully relieved by two minutes' application of the medicated electricity.

Pivati proposed to electrify his patients by cylinders filled with medicines of all kinds, as diuretics, antiapoplectics, sudorifics, &c. These medicated cylinders were named *intonacatures.*

The Abbé Nollet was so amazed at these wonderful things that he paid a visit to Pivati in Italy, and questioned him pretty sharply concerning the statements he hed published. Pivati, it appears, could not stand the eross-examination: he confessed to the Abbé that as to the odors he had never transmitted them but twice, although he made many trials. When asked to produce the successful cylinder, he said it was broken, and he could not produce even a bit of it. The Abbé then took him to task about the Bishop of Sebenico, but was informed that the poor bishop was as bad as ever. Several other exposures were also made.

All these wonders, sufficiently startling even to ordinary credulity, were nevertheless, adopted by professor Winkler, of Leipsic, who added a few of his own. He included sulphur, and, in another case, cinnamon, in a glass sphere, elec-

trified it, and filled the room with the vapor of each, which, in the case of the cinnamon, he perceived in his mouth even the next day. Dr. Bianchini's *Recueil d'Experiences faites à Venise* was mainly instrumental in exposing these absurdities.

Dr. Giuseppe Bruni, one of the principal physicians of Turin, about this period reported that at Bologna a man deaf of one ear, having a continued noise in it, and occasionally suffering violent pain, was electrified by Dr. Verati, sparks being taken from the neighborhood of his ear; the parts were reddened as if by a blister; the patient passed the night withless pain and noise, and was perfectly cured of his disorder.

Dr. Bruni then relates some other cases of cure, all of which are quite probable, but he shakes our confidence in his own judgment by stating that a physician at Some lined a cylinder with purgative matter, and electrified a gentleman with it, who immediately found on the spot the same effects as if he had swallowed the cathartic. If this happened, it must have been fright that acted.

The following case is well attested, and deserves attention.

A woman aged 33, whose father had died of paralysis, was attacked with the same disease, which sometimes affected her in the left arm, and sometimes in the leg of the same side; and although these parts lost all power of motion, they retained sensibility; but after a while she lost all sensation of the left side. Becoming worse, her head shook, her tongue faltered, her left eye became so dim that she could not distinguish colors with it; and she was oftened seized with universal coldness and insensibility, so that it was sometimes doubtful whether or not she was dead.

In this state the Rev. Mr. Brydone determined to try electricity. He therefore communicated several very severe shocks, which seemed to raise her spirits; she said she felt a heat and pricking pain in her left thigh and leg, which generally spread over the whole side, and after undergoing the operation a few minutes longer, she "cried out with great joy that she felt her foot on the ground." The electric machine producing such extraordinary effects, the woman submitted to receive above 800 shocks, the consequence of which was, that the shaking of her head gradually lessened, until it entirely ceased; she was able, at last, to stand without support, and on leaving the room forgot one of her crutches. Next day, being electrified as before, her strength sensibly increased; she walked easily without a stick, and could lift several pounds weight with the hand that had been paralytic. The experi-

ment was repeated on the third day, by which time she received, in all, upwards of 600 severe shocks, when, declaring herself to have as much power on the left side as the right, she was pronounced cured. This account was attested by herself, by the minister of Coldingham, in Berwickshire, and by a letter from Dr. Whytt to Dr. Pringle.

Professor Imhoff, of Munich, thus generalises the effects of electricity: It promotes the free circulation of the fluids, and especially of the blood; it accelerates perspiration, increases animal heat, and promotes all the secretions and excretions of the body. The essential condition of the useful application of frictional electricity is that the machine employed shall be one of considerable power, although its utmost intensity is by no means to be always brought to bear on the patient. When the rubefacient effects, or the aura, or the stream, or the local stimulus of electricity are required, they can only be obtained from the largest and most powerful machine.

The latest testimony on record of the medical efficacy of frictional electricity is to be found in a report of Dr. Golding Bird, who declares that scarcely any cases have been submitted to electrical treatment in which its sanatory influence has been so strongly marked as those in which the menstrual function was deficient. While chlorosis is present, scarcely any benefit is to be expected. The rule for insuring success, in the great mass of cases of amenorrhœa, is to improve the general health by exercise and tonics, and to remove accumulations in the bowels; a few electric shocks, often a single one, will then be sufficient to produce menstruation. The shock of a quart Leyden jar is to be passed from the pubes to the sacrum, as often as necessary, beginning about a week before the expected return of the menstrual discharge.

Advance of the Asiatic Cholera towards Europe.—According to the latest intelligence received from Trebizonde (Sept. 26th), a town on the south-eastern shore of the Black Sea, it appears that the Asiatic cholera is slowly but steadily progressing in the course towards Europe which it took in 1830 –'31. We subjoin the following extract:—"The cholera has passed the line of the Russian quarantine on the borders of the Caspian Sea, and is raging throughout all the Tartar villages of the districts of Salgan and of Deukeran. A con-

siderable number of Cossacks forming the *cordon* on the Persian frontier have likewise been attacked. At Rescht, a Persian city in the province of Ghilan, the cholera is still making incessant ravages, which have now continued during two months. The sanatory state of all the towns to the west of the Capsian Sea, from Bakou to Astrachan, is very unfavorable. Dysenteries and diseases of the stomach (frequently mortal) prevail in these towns, particularly amongst the troops in the garrisons. These maladies are probably the forerunners of the real Asiatic cholera, a phenomenon rather curious, which has been again observed latterly in Persia. There prevailed at Teheran, at Astrabad, at Meschid, and at Ispahan, a malady a considerable time before the appearance of the cholera, of which the symptoms resembled the Indian disease. The caravans which arrived from Teheran eight months since, spoke of the existence of the scourge, which was mistaken for the cholera. A French physician, who resided at Teheran at that period, and who passed through our city a few days since, assured us it was the cholerine, such as had likewise been observed in several towns in Europe in 1832 as a precursor of the cholera. The population of Teheran, which had been estimated at 80,000, is reduced by the ravages of the cholera to 60,000. The Foreign Ministers and their attendants had not dared to return to the city, but still continued to reside at Mount Alburs, in the neighborhood of Schemen, to the north of Teheran. The Russian authorities at Tiflis are well aware of the appearance of the cholera in that neighborhood, and the inhabitants of Tiflis have fled; but, up to the 13th of September, no official announcement had been made of the fact. Perhaps this course was pursued in order to prevent the mechanics from becoming alarmed, and a consequent interruption of commercial affairs.—*Times.*

In the autumn of 1830 it was ravaging the Persian province of Ghilan, the Georgian provinces of Russia, including the towns of Bakou, Tiflis, and Astrachan; and it appeared in England in the autumn of the following year.—*London Med. Gaz.—Med. News.*

Use of Black Oxide of Mercury in the Vomiting of Pregnancy.—M. Stackler has announced that he has found the black oxide of mercury a most useful medicine for removing the obstinate vomiting which sometimes occurs in females

during pregnancy. The vomiting was checked in two cases of unusual severity, by doses of the oxide, equal to five centigrammes daily (=0·77 grains). No unpleasant effects were observed to follow the use of the medicine. There was no salivation. Doctor Jouger has found the oxide equally beneficial in hysteric convulsons and in cases of uterine irritation. *Ibid.—Southern Jour. Med. and Phar.*

Mortality in the Army and Navy.—The numbers of those who perish in battle, or afterwards from wounds, is small compared to those who die from other causes. During the last three years of the Peninsular war, the total number of deaths in the British Army, amounted annually to about 16 per cent. of the whole force. Of these only 4 per cent. died in battle or of wounds which proved fatal soon after. The number of men sick in hospitals usually averaged about one-fourth of the whole. In less than three years and a half out of a force the average strength of which was 61,500 men, nearly 34,000 died, and of these only one-fourth fell by the sword; and this enormous mortality occurred among a body of men, all of whom, a short time previously, must have been in the healthiest vigor of youth or prime of manhood; so that it required the annual sacrifice of 6,400 able-bodied men, to keep in the field a working force of less than 50,000 men! If such was the amount of suffering and waste of life, when every expedient was adopted that foresight could suggest to provide proper food and raiment, and every other attainable comfort both in sickness and in health, what must it be when these precautions are neglected? Of such neglect and its terrible and execrable consequences, Napoleon's campaigns of 1812 and 1813 afforded memorable examples.—From want of proper supplies alone, the French troops perished literally by hundreds of thousands!

There is a remarkable difference between our land and sea services. The channel fleet which consisted of twenty-four sail of the line with frigates, &c., on its return to Torbay in September, 1800, after a four months' cruise, sent only sixteen men to hospital. The average mortality in the years 1810, 1811, and 1812, was only 3½ per cent.; since 1830 it has not been more than 1·4 per cent., which is less than the general average among of men of the same age on shore.—*London Med. Gaz.—Med. News.*

Therapeutic action of Chloride of Sodium (common salt).—M. Plouviers, of Lille, stated to the Academy of Sciences, that since 1842, he has been experimenting with this article. He found that after taking during six weeks, a teaspoonful, then a teaspoonful and a half of this salt every morning in a cup of milk, he became stronger, more active and weighed 5 kilogrammes (about 15 pounds) more than he did before. In continuing the use of the salt, he became plethoric, and had to cease taking it. Subsequent experience multiplied and varied, has convinced him that common salt possesses a high importance in assisting digestion. He thinks in persons of sanguine temperament or apoplectic tendency it is dangerous; but to weak constitutions without disease, it is incontestably useful; and to laborers and the poor, it would assist much in their nourishment.—*Gaz. Méd.—Southern Med. and Surgical Journal.*

Operation for Aneurism.—The following conclusions, as the result of his experience in operations for aneurisms, are drawn by Mr. Guthrie, in a lecture delivered by him at the Royal Westminster Ophthalmic Hospital:

1. That the theory of the operation of aneurism, as dependent on the collateral circulation, cannot be applied with safety to spurious aneurisms of recent occurrence dependent on wounded arteries.

2. That it is inapplicable to wounded and bleeding arteries.

3. That the length of time a spontaneous aneurism has existed is of consequence, as connected with the collateral circulation; although an aneurism should never be allowed to attain that size which may render it injurious to the surrounding parts.

4. The collateral vessels are at all times and under all natural circumstances capable of carrying on the circulation in the upper extremity, whatever disease or injury may affect the principal trunk, provided a due degree of care be taken to maintain the temperature of the part. Whenever the reverse takes place, it is an exception to the general rule.

5. After operations for aneurisms in the lower extremity, the collateral branches are almost always equal to carry on the circulation through the limb.

6. When the principal artery of the lower extremity is suddenly divided, without any previous disease having existed, mortification is not an uncommon occurrence, and is more likely to take place in old than in young persons.

7. When under such circumstances the principal vein is also divided, mortification seldom fails to be the consequence. *Med. Times.—Ibid.*

Hydrate of Lime in Diarrhœa.—Simple syrup, saturated with hydrate of lime, has been employed by Dr. Captaine as an antacid, in doses of from one scruple to half a drachm: and at the hospital Neckar, it has been given with much benefit instead of cow's milk in the diarrhœa of children.—*St. Louis Med. and Surg. Jour.*

Dr. Wollaston, the Chemist.—Littell's Living Age, that admirable digest of modern English literature, has a leading article, in the 125th No., extracted mainly from the British Quarterly Review, on the life, character, and discoveries of the late William Hyde Wollaston, M.D. Dr. W. will be known to posterity as a chemist, of extraordinary industry, patience, and perseverance, whose discoveries have yielded important results to the arts and to the progress of various departments of science. Although acknowledged to be a renowned philosopher, he was a solitary being, as much as the last man will be, or as Adam was before the creation of Eve; and yet he resided in London. If society knew nothing of him, he certainly knew but little of society. His laboratory was so completely a blue chamber, that only one person was ever in it besides himself, and that by mistake. The doctor discovered the intruder, and leading him to a particular part of the room, said, "Mr. P., do you see that furnace?" "I do." "Then make a profound bow to it, for as this is the first time, it will also be the last time of your seeing it.." All his operations were conducted on a minute scale; a few grains of anything were enough, as a tray would hold all the apparatus and tests he seemed to require in his almost microscopic researches.

Dr. Wollaston was born August 6, 1766, and died in December, 1828, having accumulated a handsome fortune by one single discovery, viz: a method of rendering platina mal-

leable. For that one process, it is said that he realized 30,000*l.* When it is recollected that he invested 1000*l.* in the name of the Royal Society, the interest of which is to be employed to encourage experiments in natural philosophy, it hardly seems just to accuse him of being as money-loving as some have represented him. A single unlooked-for circumstance in the commencement of a professional life, sickened him of the practice of medicine, for which he was eminently well prepared by study, and although the people lost the services of a good physician, the whole world gained an illustrious philosopher. He was the second son of an eminent astronomer, and one of seventeen children. In the year 1783 he took the degree of M.D., and settled six weeks after, as a medical practitioner, at Bury St. Edmunds. So poor was his success, owing, beyond doubt, to the solemnity of his deportment, and never-relaxing reserve of manner, that he sought a larger field in London. That awful gravity which is forbidding in any one, and doubly so in a physician, who, of all men, should wear a cheerful face, drove patients away, or they were afraid to come; and he therefore solicited the office of physician to St. George's Hospital, a vacancy having occurred, recollecting, probably, that in such institutions, the sick are not at liberty to choose their medical advisers. To his chagrin, Dr. Pemberton obtained the appointment, which so mortified the learned chemist, who unquestionably felt conscious of possessing transcendent powers, that he declared he would abandon the profession, and never write another prescription, even for his own father. Having turned his attention afterwards wholly to chemical pursuits, the masterly efforts of a great mind were discoverable in almost every inquiry to which his attention was directed. In the transactions of the Royal Society, particularly, are to be found, from year to year, the details of his indefatigable labors. If he had not been decidedly a chemist, he would have been distinguished as an astronomer, since there was always a strong taste manifested for that elevated branch of knowledge. To particularize the names of the subjects on which he wrote, would be out of place in this brief notice of one who had the good fortune to escape the turmoils and competition, as well as the responsibilities, of a medical practitioner, and by doing so secured a conspicuous niche in the temple of fame.

The object in presenting this synopsis of the life of Dr. Wollaston, is to demonstrate the fact, that those who are as unsuccessful as he was in attempting to pursue the calling of

a physician, are not to conclude they are equally unfit for every other pursuit, since they may rise much higher and perhaps be infinitely more useful, in some other way. Unceasing activity is required in those who hope for distinction in medicine and surgery, which distinction, when attained, is hardly a compensation for the toil it has cost. Without the faculty of adapting oneself to society, as it exists, and the further ability to apply the knowledge that has been acquired according to the wants and necessities of the sick, success is a hopeless undertaking. Some men are constitutionally qualified for practising physic. Whether learned or ignorant, they succeed well. While others, like Dr. Wollaston, are incapable of success, but, without his firmness in resolve, cling with expectation to the wreck, fancying that success must ultimately crown their efforts—and there they remain, monuments of disappointed ambition.—*Boston Med. and Surg. Jour.*

Treatment of White Swelling. Dr. Blakely details two cases of the successful employment of the *Chimaphila Umbellata* (pipsissewa, wintergreen) in the treatment of white swelling. The first case, a boy of a scrofulous famly, is thus described:

When I examined my patient, I found one of his knees three times its natural size, the skin of the leg of an unnatural ashy color, the boy being tolerably black for one of his race; considerable wasting of the limb, pulse 96, and some white fur upon his tongue. I looked upon the case as scrofulous white swelling, and concluded in my own mind there could be little done towards effecting a radical cure, as I had often treated and seen such cases treated, but had never known a cure to follow, but more or less lameness to inevitably succeed all our efforts, if we did not ultimately have to resort to the knife to rescue the sufferer from the grave.

I commenced giving my patient the infusion of pipsissewa, a pint to be drank each day. The formula for making it I took from Wood and Bache's Dispensatory, and twice a day, morning and night, I had a fresh poultice made out of oat-meal and the infusion, and applied to the whole knee; diet light, and to keep the recumbent position.

The treatment was continued from February 5th to April 15th, when the patient was discharged cured.—*Southern Medical and Surgical Journal.*

Organic Chemistry and Medicine.—The point, however, to which I wish to direct your special attention, in reference to our anticipations of advancing the science, is organic chemistry. The apparatus for organic combustion, the great invention of Professor Liebig, is already almost daily in use in our laboratory. By its means, as you know, the analysis of matter belonging to the animal and vegetable kingdoms—the product, in some form or other, of the vital force—is effected with greater ease and equal precision with the analysis of a soil or a mineral. The rapidity with which discoveries are being made, and the immense extent of the science, render it almost impossible, except for the professed chemist, to follow and to appreciate its importance. Every now and then, however, some fact is made known, having an immediate application to practical purposes, and indicating how vast a field of inquiry exists in organic nature. Within the last few days, Professor Liebig has announced to us that a residue left in the manufacture of sulphate of quinine, is the pure alkaloid itself, merely obscured by its form. The discovery of quinine by Pellatier, in 1820, revolutionized pharmacy. The active principles of the most nauseous drugs can now be isolated from the accompaniments of woody fibre and other inert matters, and exhibited in a concentrated form. This is a blessing, which only those who have had to swallow bark in substance can fully understand. During the twenty-six years in which sulphate of quinine has been manufactured, a considerable portion, every year, of the pure alkaloid has been laid aside—and, consequently, a considerable amount has accumulated. Professor Liebig's discovery will not only bring this into use, but it will enable the practitioner of medicine to prescribe the pure alkaloid, and to combine it at pleasure with vegetable or other acids, and thus to obviate the objections which are found in practice to lie against the sulphate of quinine, placing at command quinine and a variety of its salts at a price which will not preclude the poorest from its benefit.

A great portion of the vegetable kingdom still requires to be chemically investigated; of the materials which constitute the animal body, every one, without exception, awaits a new analysis and investigation. Not many months since, Professor Redtenbacher, of Prague, found that taurine, a constituent of bile, which acts a most important part in the animal economy, contains sulphur to the extent of 26 per cent. This element has been previously overlooked, in consequence of what must be considered a defect in the method of analysis of combustion; in that practice the oxygen of the analysed body

being estimated by the amount of loss, the equivalent of sulphur being precisely double that of oxygen, its presence did not disturb the calculation of the results. Professor Gregory has remarked, that this observation of Redtenbacher will probably turn out, in its consequences, one of the most important yet made in animal chemistry; and it cannot be doubted, that although our views must be changed in many points in consequence of it, our knowledge will be extended and rendered more precise and more capable of direct application to physiology and pathology. Already Professor Liebig has found reason to believe that Mulder's protein and oxides of protein exist only in imagination, as sulphur remains combined with the other elements after fibrin and albumen are subjected to Mulder's processes. To extend this inquiry into all the materials of the animal tissues, requires many skilful hands and much labor.

This branch of the science is occupying the attention of very many students on the Continent, and is undergoing a rapid development. From the masses of figures and calculations, now accumulating, representing analyses, we may anticipate many practical results of vast importance to emerge.

For my own part, I entertain the most sanguine hopes that the diseases most fatal to mankind will be elucidated, and, perhaps, wholly prevented, by pursuing this path of chemical inquiry.—*London Lancet.*

Experimental Researches on the Nutritive Power of Green and Dry Fodder. By M. Boussingault, (Ann. de Chim. et de Phys., July, 1846, and Comptes Rendus, Apr. 1846.)—It is generally thought that there is more nourishment in green fodder than in the dry hay derived from an equal weight of the fresh grass. The experiments of Boussingault show that this is not true. A heifer was weighed, and fed for ten days on green fodder, each day a quantity equal in weight to that consumed was put aside to dry. The animal was again weighed and fed for ten days on the dry fodder, then weighed again. The experiment was tried three times, and each time the animal weighed a little more after feeding on the dry fodder than after the green. The difference was not enough to prove that the dry food was the *more* nutritious, although the experiment proved beyond a doubt that it was not inferior in effect to the other.—*Amer. Jour. Sci.*

Notices of the Progress of Experiments on the Influence of Light on the Growth of Plants. By R. HUNT, (Proc. of Brit. Assoc., Sept., 1846, from the Athenæum, Sept. 19.)—The experiments described in the former communications to the Association, had all been confirmed by the results obtained during the past year. It had been found that seeds would not germinate if all the chemical rays were prevented from acting on them—and that the influence of the actinic or chemical rays was such that seeds germinated at a depth below the soil, under the influence of concentrated actinic force, acting on the surface, at which they would not have germinated under the natural conditions. The leaves being developed, the action of the luminous rays then became necessary to effect the decomposition of carbonic acid and the deposition of woody fibre within the plant. Under the joint influence of light and actinism the plant arrived at maturity, and then the calorific, or heat-producing rays were brought more fully into action to produce the ripening of fruit and the development of seed.—*Ibid.*

THE WESTERN JOURNAL.

New Series.—Vol. VII.—No. II.

LOUISVILLE, FEBRUARY 1, 1847.

MEDICAL DEPARTMENT OF THE UNIVERSITY OF LOUISVILLE.

Since our last number, the Annual Catalogue of Medical and Law students, for the current session, 1846-'7, has been published, and is now before us. As our readers are not interested in the Law Department, we shall only say that it numbers thirty-two students, which is regarded as an auspicious beginning.

The number of medical students is three hundred and forty-nine; who are from the following States:—Kentucky, 108; Tennessee, 87; Mississippi, 37; Alabama, 35; Missouri, 26; Ohio, 14; Indiana, 14; Illinois, 9; Arkansas, 4; Louisiana, 4; Virginia, 4; South Carolina, 3; Texas, 2; Georgia, 1; New York, 1;—of which three hundred and forty are undergraduates, and nine graduates; to-wit, from Alabama, 4; Kentucky, 2; Tennessee, 1; Illinois, 1, and Texas, 1.

Of this number two hundred and sixteen have taken the ticket to practical anatomy, the whole of whom have been supplied; thus showing that the disposition and the means for the study of anatomy by dissections, are equal to those of any other institution in the whole country.

We hope to be favored by our other schools with their official publications, and expect in our next number to present the aggregate of all our Western classes.

Although the school has advanced but little since last year, the Faculty regard it (and we think correctly) as in a growing condition, for it is well known that a number of students who would have visited it, have been drawn off by the Mexican war. Three, for example, went from this city.

Of the growth and prospects of the school from its beginning (under the title of Medical Institute), the Board of Trustees speak in the following terms:

"The progress of the medical school, which has advanced since its commencement in 1837, from eighty to three hundred and forty-nine pupils, they cannot but regard with the greatest satisfaction; and flatter themselves, that the Professors and the means of instruction put in their hands, are such as meet the approval of the medical profession, throughout the extensive region of country, which, it will be seen by the catalogue, contributes pupils. That arrangements are making by the Board to afford the Faculty still further aid in the prosecution of their labors, will be seen from their circular."

These additional aids and facilities, are thus spoken of by the Faculty:

"Arrangements have been made for an annual appropriation out of the funds of the department, for the purchase of books, apparatus and preparations, thus placing it at an early period, as it respects the *materiel* for instruction, in the first rank of medical schools. Orders to the amount of the first year's appropriation, have already been sent to the Eastern cities and to Europe."

We are tempted to add to these extracts another:

"It has been the anxious desire of the Faculty, to see the students come in before the beginning of the session; and for the last two or three years, an earlier arrival than formerly has encouraged them to hope, that the time is not far distant, when the introductory lectures may all be delivered in the last week of October, and everything be found fully organized by the first Monday in November; thus increasing the duration of the course a sixteenth, or to the amount of thirty-four lectures, in which of course much instruction may be given."

That parents and preceptors will perceive the obvious importance of this exhortation, and co-operate with the Faculty in giving it effect, we can scarcely doubt. Indeed, for ourselves, we would say,

that our schools generally, might, with great advantage to their pupils and to society, commence their sessions the first Monday of October, instead of November; thus adding, at the same cost to the student, an additional month of instruction; the effect of which, on the character of the profession, would soon be manifest to every body.

In conclusion, we are happy to be able to add, that diligence, sobriety, and a pacific deportment characterize the class of the present, as of the past sessions generally, of the Louisville school; affording continued evidence of regular amelioration in the character and manners of our students.

OTHER WESTERN SCHOOLS.

From the numerous medical schools in the Valley of the Lakes and Mississippi, we have received the official reports of only two. The Medical Department of the Western Reserve College, established three or four years ago at Cleveland, Ohio, gives in its catalogue two hundred and sixteen names; which is a remarkable growth. The Medical College of Ohio, at Cincinnati, has reported to the Legislature one hundred and seventy, as its number.

The other Ohio school, Willoughby University, which for ten or twelve years has been established at a village near Cleveland, is, as we perceive, by an act of the Legislature, to be transferred to Columbus, the seat of government of that State. Its Faculty will, as one of the Professors lately informed us, be there re-organised, when we shall give the names of its professors. We do not know the number of its present class.

OHIO LUNATIC ASYLUM.

We thank the officers of this institution, for continuing to send us their Annual Report to the Legislature. That now before us, for the year 1846, is number eight. Most of its predecessors we have already noticed. The following extract contains matter worthy of the attention of every State in the Union:

"The directors are much gratified in being able to announce that this great enterprise of benevolence may now be considered as completed. *The work is done.* Its conception and execution belong to the people of Ohio. The work is emphatically theirs. In all the agitations and mutations of parties—in all the monetary revulsions which have occurred since it was commenced, its progress has never been for a moment improperly delayed. Not a solitary voice of dissension has been heard upon the subject. Every year has witnessed the spectacle of a whole people, through their representatives, coming up as one man to lay their united offerings upon the shrine they had consecrated to the most touching and pitiable of human woes."

We copy the following paragraphs, for the purpose of rousing to effort those States in the West, which have not yet provided Asylums for their insane. To say nothing of the comforts they secure to that class of patients, the number of cures effected in the establishment at Columbus, is truly encouraging, and should prompt to action elsewhere.

"The Institution went into operation in the month of November, 1838. Since that time there have been in it 866 patients; 461 males, and 405 femaels; 247 pay patients, 649 supported by the State; 358 have been discharged cured, 92 have died; 420 were "*recent cases,*" (of less than a year's duration when the patient was received,) 446 were old cases, (of more than a year's duration.) Of the recent cases discharged, 90.59.100 per cent. (or 289) were cured—of the old cases 27 per cent. (or 69.) In addition to this, a great number of those incurable have been much improved in their condition.

"During the past year 175 patients have been admitted, 88 males, and 87 females. Of these, 101 were 'recent cases,' 74 were old cases; 71 have been discharged 'cured,' 18 have died. In the recent cases discharged, 95·38.100 per cent. were cured—in the old cases 20·93.100 per cent. A number are still improving, with fair prospects of recovery. These results compare favorably with those in the best institutions, both in this country and abroad."

In running over the statistics of this Report, we observe a number of interesting facts, but our limits do not permit an extensive transcript.

The following table, embracing all the patients, 866, admitted from the opening of the establishment in 1839, is instructive as to the time of life, at which insanity commences in this country, and its relative prevalence in the two sexes:

Showing the age at which Insanity commenced.

	Males.	Females.	Total.
Under twenty years	38	47	85
From twenty to thirty years	216	160	376
" thirty to forty years	108	106	214
" forty to fifty years	66	60	126
" fifty to sixty years	24	27	51
" sixty to seventy years	9	5	14

It would seem, that the seasons exert some influence on this disease. Of three hundred and forty-seven recoveries, fifty-three took place in winter; seventy-nine in spring; ninety-one in summer, and one hundred and twenty-four in autumn. The number of the latter season, contrasts too strikingly with the numbers which respectively represent the other seasons, to be accidental. If we take winter and spring together, and compare them with summer and autumn, we have 132:215. From which it would appear, that hot weather is more favorable to the cure of insanity than cold.

The statistics of intemperance and insanity are worthy of notice. They run through eight years, and if we divide the whole time into two equal periods, we have for the former 11·18 per cent.—for the latter 5·30 per cent., of cases ascribed to intemperate drinking. But this will appear more obviously by the following table:

FIRST PERIOD.

A. D. 1839	14·50	per cent.
1840	11·00	"
1841	8·25	"
1842	10·75	"

SECOND PERIOD.

A. D. 1843	6·25	per cent.
1844	5·75	"
1845	6·00	"
1846	3·50	"

Now to what should we ascribe this diminution since 1842? this reduction to one-fourth, from 1839 to 1846? Undoubtedly to the influence of the great Temperance Reform, which began to spread over the West since 1840. The epidemic cholera of 1832–'34 gave a great impulse to whiskey and brandy drinking, of which the fruits were fully developed in 1839. Soon after that date, an era of comparative sobriety began, and its beneficial effects were pre-

sented to our admiration in 1846, by a reduction in the percentage of three-fourths! Let those who are wont to sneer at the efforts to stay the tide of intemperance, look at this result, and apply it to the whole country.

Of four hundred and sixty-three patients whose occupations are given, we observe that two only are physicians, while six are lawyers. As the number of the former in the State of Ohio far exceeds that of the latter, it follows that the practice of law favors the production of insanity more than that of medicine.

The treatment of the insane in this public charity, which does honor to the State of Ohio, is largely of a moral character. Thus, a reading-room, extensively furnished with newspapers and magazines, has been provided, and several anniversaries have been observed by the patients. The 4th of July is celebrated; the annual State election is held within, as without the walls of the Asylum, and every practicable method adopted for exercising the faculties and interesting the feelings of its inmates—the whole of which is conducted by the indefatigable Dr. Awl, of whom the Directors say: "Much praise is due to the superintendent, under whose care the institution has grown up from infancy to its present magnitude. The system adverted to is the work of his hand."

We should not, however, do full justice to our noble profession, always foremost in works of benevolence, if we did not add that the name of S. Parsons, which stands at the head of the Board of Directors, is that of one of the ablest and most respectable physicians of the State.

PROFESSOR DICKSON'S INTRODUCTORY LECTURE.

We have been favored by the distinguished Professor of the *Institutes and Practice of Medicine*, in the Medical College of the State of South Carolina, with a copy of his Introductory Lecture, delivered at the opening of the present session. Its drift is the *inherent* claims of the medical profession on the respect and gratitude of society, and the causes, also inherent in the profession of this country, of its failing to secure what it ought to receive. As he advances, he cuts right and left, and woe be to him on whom the sabre falls.

He maintains, it is true, that in the *practice* of physic and surgery, the profession of the United States, have done as much as has been accomplished elsewhere; but sees many obvious and glaring defects, (growing chiefly out of our state of society,) that give a downward tendency to the profession, which will not, without great effort, be arrested. These defects lie chiefly in the want of preparatory education in our pupils, the lax and limited courses of study through which they are conducted in our schools, and their early and easy attainment of the doctorate. But on this point we must allow him to speak for himself:

"It is a grievous charge against the profession in these United States that its highest nominal rank is attainable at such a low rate of scientific acquirement, and with so little expenditure of time and labor. One cannot help being struck with the immense difference in this regard between us and our transatlantic brethren. In France, the candidate must attend four courses of lectures at least, upon all the various branches of medical science, aud undergo three examinations, some of the answers at which must be written extemporaneously, and in full detail. The "preliminary literary guarantees" demanded of pupils are a Bachelor's deg ee in Arts, and a Bachelor's degree in Sciences. They presuppose a classical and scientific education of ten years' duration. Yet the Medical Congress which lately met in Paris, a most august and imposing body, while they express their approbation of these preliminary guarantees as "sufficient but not too onerous," recommend as expedient that the duration of medical studies now occupying a period of *four* years be prolonged to *five;* that an examination be exacted at the end of *each year;* and that all students be obliged to serve for at least *a year* as dressers in a hospital.

"In England, the degree of Doctor of Medicine is not to be reached with less than eight years of study. At the University of London, the most liberal of the English schools, the student cannot even enter without an examination; he cannot be matriculated unless he "shows a competent knowledge of the classics, including the English languege, history and geography, mathematics and natural philosophy or chemistry." Before graduating as Doctor, he must have passed two examiations for the Bachelor's degree, and "a third, which is final;" exhibiting his attainments not only in "physiology, general pathology, general therapeutics, hygiene, surgery, practice of physic, midwifery and forensic medicine, or medical jurisprudence, but also in logic, and intellectual and moral philosophy." The number of persons ndmitted last year to the Doctorate of Medicine in England, was not more than 77; in our own country it amounted to fully 1,000! Within the last three years, the whole number of those licensed to

practise as physicians, surgeons and apothecaries in England and Wales, is stated by the Medical Gazette at 2,721, being an annual average of 907. It is impossible to ascertain how many among us procure or assume the license to practice, which is indeed almost absolutely without restraint or limit.

It is, I fear, entirely too late even if it were not out of place here to discuss the question of the propriety or impropriety, the good or evil of this unrestricted system. The movement party are everywhere in the ascendant, the conservative principle almost extinguished; and we are going on to experiment freely upon the possibility of an existence untrammelled by any of the forms, which, in the Old World, are associated with recollections of inequality and oppression. In our vast republic, men shall hereafter preach, litigate and prescribe ad libitum; and the monopoly of skill, of preparation, and of diligence, no longer lie heavy on the bosom of the community. It is psssible that these tendencies shall be arrested—but the struggle is almost hopeless. On this downward road, as on the path to the den of Cacus, *nulla vestigia retrorsum.* In the meanwhile it behoves the profession, totally unprotected as it is likely to be, by any legislative countenance, to consider how it shall preserve itself from utter prostration and annihilation. We cannot require, as I have admitted, any high standard of preparatory education—the "preliminary literary guarantees" of the French system—but to compensate for this defect, we are bound to insist on a long-protracted and extensive course of technical studies. If human life and human health be worth consideration at all, and if professional ignorance can injure, and professional expertness can benefit mankind—questions which I cannot stoop even to entertain in this place, but shall assume the affirmative to be as clearly true as any proposition that can be submitted in language—then we should do all that we possibly can do to make the acquisition of knowledge certain, easy, full, nay, unavoidable. And how else can we effect this than by multiplying the opportunities presented to the student, and keeping him long in contact with the sources of information. Our systems must be accommodated to the wants and requirements of the average mind—the ordinary capacity. Talents and assiduity run rapidly forward and promptly overcome whatever difficulties lie in their way; but we must legislate also for dulness and indolence. This must be aided and stimulated. 'Repetition—repetition,' said the learned Wyttembach, 'is to the scholar what action, action, action is to the orator;' and by frequent repetition, the dullest will be instructed, and the slowest urged onward. Besides this, it never should be forgotten that whatever is caught up hurriedly is apt to be slightly impressed on the understanding and the memory; while acquisitions, more deliberately made, fix themselves with greater permanence, and stand out ever after with clear distinctness in the mind. I have already drawn a sketch of our American mode of study—text books read exclusively, or almost exclusively, cursorily, hastily; two half courses

or one brief course and a half of lectures attended—listened to perhaps; a single dead body dissected under the eye of a Demonstrator, perhaps an arm only or a leg; a few surgical operations witnessed, such as may accidentally present themselves within the six months spent at the colleges; a few patients seen in the wards of a hospital at intervals of days, or it may be weeks. Our schools generally require three years of such study; but how seldom is even this rule complied with. The standard is so low, that any common industry may overleap it in half the time. We demand the legal age of maturity to be attained before the reverend Doctorate shall be reached—but our transatlantic youth, like the country which gives him birth, are of so quick and precocious growth, that they are universally ripened into grave manhood at or before twenty, if the family Bible and the parish register are to be trusted. There are many honorable exceptions I am aware—but I appeal to those who hear me, whether I color or exaggerate in the picture I have thus drawn.

As a predisposing remedy for these evils our author looks with interest to the approaching National Convention of Physicians in Philadelphia, but we fear will look in vain. Nevertheless, the Convention should be well attended, and all plans of reform and elevation freely, frankly, and forcibly discussed.

Want of space prevents our making further extracts, and we have so often presented our own views of the means of improving the profession of this country, that we shall not again obtrude them at this time. We hope the able lecture of the Southern professor will be extensively read in the region where he teaches with so much distinction, and that it may contribute to the amelioration which he has so much at heart.

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DANIEL DRAKE, M.D.,

PROFESSOR OF PATHOLOGY AND THE PRACTICE OF MEDICINE IN THE MEDICAL INSTITUTE OF LOUISVILLE:

LUNSFORD P. YANDELL, M.D.,

PROFESSOR OF CHEMISTRY AND PHARMACY IN THE SAME:

THOMAS W. COLESCOTT, M.D.

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OF

MEDICINE AND SURGERY.

MARCH, 1847.

ART. I.—*The Diseases of the Army of Occupation in the Summer of* 1846.

By H. R. ROBARDS, M.D., of Memphis, Tennessee.

The following abstract from notes taken while the writer was acting as Surgeon to a regiment of volunteers from Tennessee on its march to Mexico, and during a few weeks while stationed at Matamoras, is presented to the profession, in the hope that its details will be found interesting and useful. The notes were penned in camp, and my short military experience has taught me that the camp is not a place for easy or finished composition.

As early as May last, in anticipation of a call for volunteers for the war then just breaking out with Mexico, the stirring notes of the fife and drum were heard in Memphis; in a few weeks, five companies were made up, and remained in organization until the final lots were drawn in June, when only three were admitted into service.

The requisition made upon Tennessee was for three regi-

ments—two of infantry, and one of cavalry; the latter, to which I was attached, was ordered to rendezvous at Memphis by the 15th of June, or as soon thereafter as possible. This regiment consisted of three companies from East, five from Middle, and two from West Tennessee. I am particular in locating the different companies, in order to show the varying influences of a southern climate upon constitutions from different sections of the State.

Three companies only had arrived at Camp Carroll, the place designated for the encampment, two miles east of Memphis, on the day appointed; on the 24th of June, the whole number were there; and on the 27th of July, we took up the line of march for Mexico; the entire distance, about fifteen hundred miles, to be traveled by land.

Our camp near Memphis, so far as could be observed, was was free from local causes of disease; the situation was elevated, and both men and horses were furnished with excellent water from a single large spring. The weather, during a greater portion of the time, was excessively warm and dry, and the roads and whole encampment disagreeably dusty. For the first three weeks after the arrival of the troops at this place, we had little else, in the way of disease, to contend with but diarrhœa, intermittents, colic, etc., brought on chiefly by exposure and imprudence in diet. The companies from West Tennessee, being acclimated, suffered least; two-thirds of the men from other parts of the State were attacked with one or the other form of these diseases soon after their arrival. The treatment was simple, and only varied with the cause. If diarrhœa, and the cause imprudence in diet, a dose of castor oil relieved most of them; if it did not, broken doses of calomel, ipecac. and morphia invariably put a stop to it. This was a favorite combination with me in this disease, and throughout the entire march never failed, when the patient could be restrained in his diet. The cases of intermittent fever were cured with equal certainty by administering *two doses of quinine, of ten grains each*, one given six hours before the chill, and the other two. As colic was often brought on

by gorging with indigestible food, emetics were frequently administered, and gave instant relief. If the indications did not call for this remedy, calomel and opium, followed by a brisk purgative, were given; and if, as is often the case in this disease, an operation could not be procured in time by purgatives, then I had recourse to an expedient which with me has never failed, and I have used it in numerous cases of obstruction from various causes: this is forcing large quantities of lukewarm water into the intestines by injection. If the obstruction is caused by impacted fæces, the water reaches them, they are moistened, and pass off. If it be partial hernia, as I have known in one instance, where a knuckle of the intestine is retained in the internal ring, the gradual and powerful pressure of the water draws the bowel out, straightens it, and thereby removes the obstruction. I have often been astonished at the immense quantity of water that can be forced into the bowels without the slightest injury to the patient, but often with the effect of affording instant relief.

About the 20th of June, a most troublesome camp disease broke out. I refer to measles, which, notwithstanding every precaution that could be used, remained among the men three months; there were not less than three hundred and fifty cases of the disease, and yet all recovered. The treatment adopted was chiefly expectant. Sometimes the patients took stimulating diaphoretics, and often during the march drank freely of hot whisky toddy, even while the fever was on, without any bad effects that could be perceived; *purgatives were decidedly injurious in any form.* Diarrhœa, which often occurred as a sequel to this disease, was sometimes obstinate, but yielded to external irritants, mucilaginous drinks, anodynes, etc.

About the first of July, a few cases of continued fever occurred in camp; but they were confined to one company, which was stationed in an elevated part of the encampment, and in which the usual degree of cleanliness was observed. This company was from a region in Middle Tennessee noted for its insalubrity; two of these cases proved fatal, in conse-

quence, I believe, of the dread of the hospital that existed in that company, which deterred the men from calling for medical aid until the disease had made considerable progress. The brain was the organ that suffered most, delirium being a constant attendant. The treatment consisted of cold applications to the head, blistering, alteratives, etc. One fact I observed in the management of this fever, which strikes me as worth recording; that is, that *quinine invariably aggravated all the symptoms.* If experience should prove this to be always the case, will it not go far to prove that the cause of intermittents and remittents differs from that of continued fever?

During the time we were at Camp Carroll, the companies from East Tennessee suffered most from diarrhœa, colic, and such other diseases as are brought on by exposure and imprudence in diet, their constitutions seeming as yet to resist the causes of fever in any of its forms. It will be remembered that East Tennessee is for the most part a high, broken and healthy section of the State. In the companies from Middle Tennessee there were many cases of remittent fever, at the same time that diarrhœa, colic, etc. were common. The two companies from West Tennessee suffered but little from any other disease except intermittent fever.

From the close proximity of the camp to town, and the freedom with which soldiers, when unrestrained, are known to indulge in every kind of dissipation, the number of cases of syphilis and gonorrhœa which I have to report will not seem extravagant, namely: twenty-three of the former, and eighty-four of the latter.

The first stages of syphilis were treated with calomel in combination with sarsaparilla; without waiting for the gums to be touched, this form of mercury was laid aside after a few days, and the cure completed by giving in full doses the proto-iodide of mercury, and sometimes the hydriodate of potassa. The latter was always used when the gums had been previously touched with mercury; dry lint or calomel was applied to the chancres, and iodine ointment to the buboes. The patients generally recovered in a few days.

Gonorrhœa was treated with equal success, by administering two parts of the comp. extr. buchu and one of balsam copaiba in teaspoonful doses three times a day, in the first stage; in the second, that is, after using the above four or five days, injections of a strong solution of nitrate of silver or acetate of lead were employed, and generally effected a cure at once.

On the 20th of July, our encampment was changed to the bank of the Mississippi river opposite Memphis. After this, we had but one or two cases of continued fever, while the intermittents and remittents assumed a much more malignant form.

But before I proceed farther, it may be as well to state that a little upwards of a thousand men, either belonging to or in some way attached to the regiment, came under the surgeon's care; out of which number, on the 4th of October, there had been more than twelve hundred cases reported. Of course, some of the men were several times on the sick list; but the case was never reported unless it was a different disease from the one previously treated; relapses were never reported the second time. This regiment, as I have before mentioned, consisted of volunteers from different sections of the State, of various professions and callings; many were educated gentlemen; many belonged to the respectable class of farmers and mechanics, and not a few were loafers. With all, the habits, customs, diet, etc. of a camp life were different from what they had before known. The sickly season was just approaching when they arrived at Memphis; the country through which they traveled was one of the sickliest in the United States. Is it wonderful, then, that so large a number of cases should have occurred? Is it not astonishing that only five had died up to the 4th of October, when I temporarily left the regiment? It will be admitted that this success was almost if not entirely unprecedented, and I attribute it greatly to the efficacy of a single remedy, quinine. This was our sheet-anchor, and, without it, my opinion is that our regiment, now by far the largest and most efficient in the service, would have been completely disabled.

From the accumulated experience of the profession, it is clear that quinine acts in some manner specifically upon the nervous system, producing, as I have lately seen, when given at improper times and in over doses, complete derangement of that system. May this not throw some light upon the vexed question as to the organ primarily affected by the remote cause of fever? If quinine cures fever, and the action of the article is specifically upon the nervous system, does it not follow that the cause of fever must act primarily upon that system? But I return from this digression to my notes.

I mentioned before that the remittent and intermittent fevers assumed a more malignant form on the bank of the river, but did not state that diarrhœa almost entirely disappeared from the camp, except when induced by drastic purgatives, which was so common an occurrence that we had to guard scrupulously against their use.

The symptoms that ushered in intermittent or remittent fever were very similar, and such as usually occur in that section of country. However threatening the premonitory symptoms might be, it was not often the case that medical aid was called for until the patient found himself shivering with a chill; then he was let alone until the stage of excitement passed off. If at this time the tongue, skin, etc. indicated a very disordered state of the secretory organs, a mercurial in some form, in combination with a gentle purgative, was given during the sweating stage; the kind of purgative to be given was always suggested by the nature of the case, the constitution of the patient, etc. Very often, indeed, they were not used at all, and the cure proved equally effectual. We usually commenced with the quinine eight or ten hours before the chill ought to return; ten grains were given, and repeated four hours afterwards; the third dose was given or not as the case seemed to require.

Ten grains of quinine I regard as a maximum dose, *if to be repeated.* I however frequently gave as much as thirty grains; but it was always when the case was seen for the first time a few hours before the chill was expected, and it constantly

kept it off. I prefer giving the remedy in the grain doses, for the reason that [illegible] very effectually [illegible] as when given in [illegible] was simply in [illegible] doses that [illegible] made into pills [illegible] and rapid. The [illegible] to the skin. [illegible] certainly [illegible] grains [illegible] or four days. [illegible] remained [illegible] period of [illegible]

The cases of [illegible] it is in the [illegible] quickly [illegible] this time. [illegible] in large doses. [illegible] such a course [illegible] fever. In my practice [illegible] the remissions [illegible] usually, in the first [illegible] the first [illegible] purgative, [illegible] up an active purgative [illegible] bowels. Ipecacuanha generally answered the purpose remarkably well. Most frequently the combination was of calomel and ipecac, given in broken doses, which course, under circumstances required, was kept up for two or three days, when the remissions usually became more distinct, and quinine had the effect of arresting the disease. These cases rarely continued on hand longer than four or five days.

There are some other diseases which many southern physicians regard as having a malarious origin, and treat indiscriminately with quinine; I allude more particularly to dysentery and diarrhœa. Now, I have not found such practice judicious.

but, if I mistake not, have seen very injurious consequences result from it. But when these diseases assume, as they sometimes do, a periodical form, then quinine, in combination with morphia, is the remedy. I should never recommend it in these diseases unless they did assume such a form. This combination I have found exceedingly useful in the treatment of other diseases attended with the nervous irritability very common in the fevers in the South. The fevers on the Rio Grande at this time are so constantly attended with disordered stomach and bowels, that the morphia is indicated in almost every case requiring quinine.

As I before observed, our regiment took up the line of march on the 27th of July. We were under the necessity of leaving twenty-five sick men at the hospital in Memphis; most of them, however, were convalescent and followed in a few days. The direction of our march was a little south of west, passing entirely through Arkansas from north-east to south-west, and through the whole of Texas in the same direction. A geological and topographical history of this country would be a valuable and interesting work. My duties in another capacity were too arduous to allow much time for such investigations. From Memphis to Little Rock, the capital of Arkansas, the road passes through a low, flat, marshy country, pregnant with local causes of disease; and our troops suffered more, perhaps, in performing that distance of one hundred and fifty miles than on any other portion of the route. The weather was excessively warm, the roads dusty, and the water disgustingly bad; this was felt most severely in the Mississippi swamp, a distance of forty-five miles. Here, exposure to the sun, bad water and imprudence in diet brought on many cases of severe diarrhœa; the form of fever was principally malignant intermittent. I found it necessary not only to give as much as thirty grains of quinine at a dose, but to assist it with stimulants, external irritants, etc. Congestion was the symptom most to be feared, and there was no time to "prepare for quinine;" it must be given at once, and boldly given, or the patient was lost. It is astonishing how soon the worst cases

recovered. Our conveniences for transporting the sick consisted of an ambulance fixed upon springs, and as many common wagons as were required. A great many preferred remaining on horseback, on account of the closeness of the wagons and the extreme heat. Measles on this account gave us much trouble; but notwithstanding all these inconveniences, we arrived at Little Rock in good time and without the loss of a man.

On this route an accidental case of surgery occurred, which, from its novelty in one particular, may be worth mentioning: A soldier, in taking a carbine from among some bridles and saddles, accidentally discharged it, the ball taking effect upon his comrade, who was standing so near that his clothes were set on fire. It entered the anterior inferior part of the axilla, ranged upward, and passed out at the anterior edge of the scapula. Not being near at the time myself, the assistant surgeon, Dr. Washington, examined and dressed the wound. He reported to me that he thought the ball had passed above the axillary artery, fracturing the humerus at the head or neck. I had only time the next day to make a superficial examintion of the wound, which I did without taking the bandages off. I discovered that the bone was evidently fractured, but at what point I could not determine, in the situation in which the arm then was. Dr. Washington was left in charge of the case, and reported to me, a short time afterwards, that on a more minute examination, he had discovered that the humerus was fractured, not at the head or neck as he had at first supposed, but three or four inches below, near the insertion of the latissimus dorsi and pectoralis major muscles; the axillary artery had remained uninjured, and could be distinctly felt pulsating when the finger was introduced into the wound. Suppuration was free, and the wound healed about the time that the bone united. In this case, the ball passed below the artery, but what broke the bone so far from the place at which it entered I do not clearly perceive; there was no fall or jar of any kind except that made by the ball itself.

At Little Rock we remained five or six days, recruiting;

here the diseases assumed a milder form, intermittents being most common, and on the whole the number of cases was considerably diminished. Our march was now through a high, broken country, to Washington, in Arkansas, a distance of one hundred and twenty miles. The health of the regiment continued to improve until we crossed Red River, at Fulton, and encamped upon the edge of the swamp. Here my notes show a large increase in the number of cases of malignant intermittents and remittents, requiring even a more vigorous treatment than before. Congestive fever, in its worst form, prevailed at this time; remittents were also more obstinate, and required a more liberal use of mercurials. As the sick had to be hauled, these were given invariably at night, and in every case of fever where there was a remission, quinine was given in the morning, and repeated once or twice if necessary, regardless of the effect of the purgative given the night before. The condition of the bowels was attended to after the fever was broken, and quinine would do this whether the bowels were acted upon or not.

It may be worthy of remark, and I noticed it in a hundred instances, that though intermittent or remittent fever often preceded measles, it never accompanied or succeeded it during the march; diarrhœa, on the contrary, almost invariably followed it. The number of cases of fever occurring during the march through Texas was immense; this may be attributed in a great measure to exposure to the rays of an ardent sun during the day, and encamping upon the marshes and swamps of creeks and rivers at night. In the prairies, the heat of the sun was most intense, and was especially oppressive to persons from the North.

About the first of September, many cases of jaundice occurred; this was often though not always preceded by an attack of fever. The complaint was never serious, but excessively annoying to the patient, in consequence of the languor and general feeling of indisposition which it induced. It was almost invariably accompanied by a ravenous appetite. An emetic was given in the onset of the disease; this was fol-

lowed by a brisk purgative, and then vegetable tonics were relied on to effect the cure. This course I persevered in for some time, but the cases did not recover as rapidly as we like to see them in the army. Another remedy must be sought for, more certain and rapid in its effects. Iodine struck me as coming nearer to fulfilling all the indications than any other I could think of, particularly the proto-iodide of mercury. This was given in the form of pill, in combination with rhubarb and aloes, twice a day, each dose containing two grains of the proto-iodide. My expectations were more than realized; indeed, it acted like a charm, and I had no further trouble with the disease.

I have now in a hurried and rather superficial manner referred to all the diseases we had to contend with in large numbers; of course there were many other isolated cases of rheumatism, dropsy, neuralgia, paralysis, etc., which recovered under the usual treatment. In giving the treatment of the different diseases encountered, I have left out all such remedies as are used merely as auxiliaries, and confined myself to such as were mainly relied on. Indeed, on a march through a wild country like that through which we passed, where both sick and well had to move at the sound of the horn in the morning, there was no time nor opportunity allowed for dealing in those minor remedies, so often used in domestic practice, more with a view of amusing the patient than with a hope of benefiting him.

Three deaths occurred on the road, one from each section of the State. No perceptible difference could be observed in the number or violence of the cases in the different companies after getting fairly into a southern climate, for there cannot now be found three men from any company who have not been under the care of the surgeon.

At Lavacca, a small town on the Matagorda Bay, now used as a depot for one division of the army, the regiment remained stationary eight or ten days; here my own health became so feeble that I obtained permission to go on to Matamoras by water. On the first of November the troops crossed

the Rio Grande, and encamped on the bank of the river five miles above town.

Here the diseases have been chiefly of an intermittent form, accompanied in almost every case by gastric and intestinal derangement, and, owing to this, more difficult to treat than heretofore. Quinine alone almost invariably vomits; but rarely ever does so in combination with morphia, particularly if the precaution is used of applying a mustard plaster over the epigastric region at the time it is given. Owing to the frequent changes in the weather, relapses often occur, and the stage of convalescence is always protracted. Mercurials are often indicated, and are used with great advantage.

December, 1846.

ART. II.—*Medical and Obstetrical Cases.* By R. L. SCRUGGS, M. D., of Germantown, Tennessee.

PNEUMONIA. May 1st, 1846. Visited G. F., aged about 23 years, in Upper Mississippi; found him delirious, having been attacked with pneumonia of both lungs four days previously, for which little or nothing had been done. His pulse being 120 in the minute and tolerably full, skin dry and hot, and head much affected, the result of want of due arterialization of the blood, I determined to use the lancet. This I did cautiously, and finding, after I had taken a few ounces of blood that he appeared to sink under its loss, I closed the orifice. I then cupped him extensively over the chest, and applied mustard mixed with hot vinegar over the chest, and upper and lower extremities, which made not the slightest impression. I then mixed together equal parts of hot oil of turpentine and vinegar and rubbed the mixture upon the extremities and chest; immediately after which I applied sinapisms to the extremities and a large blister over each lung. These having made an impression very soon, the sinapisms were removed and the blisters permitted to remain until they drew well; after which, for several days, the blistered surfaces were dressed

with savin cerate, and whenever they showed a disposition to heal the blisters were reapplied. I gave him a solution of mur. ammon. and tart. emetic every hour, in teaspoonful doses, to be increased or diminished according to the effect produced upon the stomach. On the 3d day after I first saw him I gave an expectorant of lobelia, squills, and seneca; gave blue pill grs. v., night and morning from the commencement, and continued it until its constitutional effects were discoverable. This, with a little Dover's powder to prevent the medicine from running off by the bowels, and warm teas to promote diaphoresis, with abstemious diet, &c., constituted the treatment.

This patient had been delirious for fifty-six hours before I saw him, and remained so for twelve hours afterwards. On my first examination I found the lungs filled from their bases to very near their apices; the patient's breathing was very rapid, of course, and that dull redness of the cheeks peculiar, I believe to this disease—the effect of venous congestion, or a languid circulation in the capillaries—conspicuous at first sight. He soon recovered, notwithstanding all the unfavorable appearances, and is now in perfect health.

Rupture of the Uterus. Visited Mrs. B., in her fifth or sixth labor; found her with a dull, inexpressive, and sunken eye; countenance anxious and dejected; abdomen so exceedingly tender that she could not bear to have it touched. I found an irregular practitioner in attendance, with several old women, who informed me that the patient had had occasional pains, resembling labor pains for three weeks; but that she had been in actual labor for three days; that the head had been the presenting part originally, but that they had attempted to "push it up and turn," in which efforts they had succeeded in getting hold of one hand of the fœtus, at which they had "pulled with all their strength without being able to move it an inch;" that the pains had been strong up to 12 o'clock the night before, at which time they had ceased altogether. Upon making an examination per vaginum, it was found that the child had receded entirely out of the reach of

the finger. The man in attendance, told me that he had given large and repeated doses of ergot, and pulled hard at the *hand* of the fœtus during the violent contractions of the uterus brought on by the ergot.

It was clear to my mind that the uterus was extensively ruptured, and that the poor woman had been sacrificed by the ignorance of those who attended her. Notwithstanding the pulse was quick, irregular and very feeble, and the respiration hurried, labored and painful, I determined to turn and deliver, believing it to be the only possible hope. I gave her a large dose of morphia, from the effects of which she slept about three quarters of an hour. Immediately after she awoke, I passed my hand into the peritoneal cavity, without feeling the uterus, and with some difficulty disentangled the fœtus from the intestines and omentum by which it was surrounded. I got hold of the feet at length, and brought them down, but was compelled to use very considerable force; as the uterus which was completely ruptured, had no power to aid in expelling the child. As soon as the head reached the superior strait, I found that it could not be made to descend farther, and soon ascertained the cause to be preternatural enlargement, the result of dropsical effusion within the cranium. I immediately passed up a bistoury, and made an incision just above the left ear, the face of the fœtus looking to the symphysis pubis, and thus evacuated a large quantity of water; after which, the head, enormously enlarged by dropsical effusion, passed without difficulty. The placenta was not half its usual size. I had a bandage well adjusted, gave the patient a full dose of morphia, left directions to keep her perfectly quiet, and departed under the impression communicated to her husband, that she would die in the course of the day. She died the next morning.

Polypus of the Uterus. The next case that I shall present, and to me by far the most interesting, is one of Polypus of the Uterus.

The first time I was called to visit this patient, a negro woman about 46 years of age, was in the spring of 1845.

The history that I then received of the case was as follows: About two years previously when it was thought to be about the time her menses ought to cease, she was attacked with violent menorrhagia. The loss of blood was so great, at times, as to threaten immediate death. A skilful physician was called in, who used the ordinary remedies for suppressing this kind of hemorrhage, and she appeared to do pretty well for a short time; but the hemorrhage returned again and again, until she was worn down to a mere skeleton, and all hope of her recovery was lost. For a long time her mistress had not sent for the physician, but kept ready a quantity of acet. plumb. and opium, with which the hemorrhage was easily controlled.

By the advice of my friend and preceptor John R. Frayser, M. D., of Memphis, I applied a blister over the sacrum, and put her upon the use of the infusion of secale cornutum, mineral tonics and a generous diet, and flattered myself for a time that, with these simple means, I should effect a cure; but I soon discovered my error.

Finally, as it had been neglected before, I determined to make an examination to see if possible what was the source of this obstinate hemorrhage. Accordingly in September last proceeding to explore the vagina and os tincæ, Dr. Frayser and myself satisfied ourselves of the existence of a polypus attached to the cervix. The cause was now clear enough. I executed its removal in the following manner:

I used a double silver canula and a waxed thread of a size sufficient to fill accurately the instrument; tying one end of the ligature to one shoulder of the canula, and passing the other end through both barrels, leaving a loop at the other extremity, and two feet of the ligature hanging out, I took the instrument in my left hand and with my right encircled the pedicle of the tumor without much difficulty. Then drawing tightly upon the end of the ligature that hung out with my right hand, while with the left I gave to the point of the instrument the proper direction, to secure the thread around the neck of the tumor as near its attachment as possible, I secured the ligature to the other shoulder of the instrument, and

the operation was completed. This was on the first day of October last. I visited the patient the next day and tightened the ligature, and from the extremely offensive smell, I concluded that the circulation in the tumor had been completely cut off. On the next day the instrument, tumor and all came away together, it being only about 48 hours from the time the ligature was applied.

I had the parts well cleansed with a solution of chloride of soda and infusion of chamomile, using them alternately for several days, until the parts ceased to emit an offensive odor. I then put her upon the use of the prussiate of iron, ordered a genorous diet and gentle exercise in the open air, as soon as she was able to walk out. She recovered rapidly, and has menstruated regularly ever since, notwithstanding she says she is 48 years old and has given birth to twelve healthy children, nine of whom are now living; she has perfectly recovered her health, and may yet have several children. A case occurred in Cumberland county, Virginia, where a lady, at fifty-five years of age, gave birth to two fine boys. Other similar cases I believe are on record.

Prof. Dewees in commencing his article upon this disease, says: "This disease of the uterus, the author has never seen, he is therefore under the necessity of drawing his account of the polypus from the experience of others." And again, he remarks: "It would seem to be fairly presumable that this disease is of more rare occurrence in this country than in Europe, since, in the practice of the gentlemen just named, (Levret, Denman, and Clarke) many cases have occurred, while in this, the experience of a number of gentlemen whom I have consulted, has not furnished one."

I am inclined to believe that this disease is of much more frequent occurrence in this country than is generally believed, the opposite opinion obtaining, probably, from the fact that it is not looked for. An examination ought always to be made in obscure cases of uterine disease, since in affections of the kind just described it is clear that nothing but an operation can rescue the patient from the grave.

January 19th, 1847.

ART. III.—*Intermittent Fever, its Phenomena, Peculiarities, Types, and Treatment.* By T. B. GREENLEY, M.D., of West Point, Ky.

Intermittent fever was more than usually prevalent in this section of country during the past fall; in fact, comparatively few persons escaped the disease, which made its appearance about the first of August, and continued till some time in November.

The portion of country to which my practice is mostly confined is comprised principally of the bottoms of the Ohio and Salt rivers and Knob creek, together with a section of country called the *hills*, lying back a short distance from the Ohio river. This last mentioned tract of country is interspersed with a great many ponds or sinks, filled with water, which never go dry. These sinks or ponds are formed, it is supposed, by the caving in of the limestone rock which underlies this region. These ponds appear to be increasing every year, and affect the health of the country in their vicinity to a serious extent.

While there was a great increase in the number of cases of intermittent fever in this section during the past season, the disease assumed, if possible, a greater variety of forms. I have had to deal with the quotidian and double quotidian, the tertian and double tertian, the quartan and double quartan, the quintidian, weekly, malignant and simple intermittent, together with their numberless complications. The malignant form of this disease has, this season, like the simple variety, manifested itself in more than the usual proportion of cases; and likewise has presented a great variety of phenomena. Most commonly, however, it confined itself to the tertian type.

I well recollect the first case of this disease that came under my treatment. When called in, the patient was laboring under the second chill. He was vomiting incessantly, bringing up considerable quantities of bloody mucus, having something of the appearance of patches of the mucous coat of the stomach after death from inflammation and softening. He

was cold up to his hips, as well as on the surface generally; suffered with great thirst, and complained of being too warm. He was perfectly in his senses, and told that he was dying. In fact, he looked very much like a dying man. There was no time to be lost. I had two boxes of mustard made into plasters, and covered him pretty well up with them, allowing them to remain on until they completely reddened the surface. This had the effect of bringing on reaction to a considerable extent, and subdued the vomiting in some degree. We now cupped him freely over the stomach, and applied a blister to the same region; the treatment entirely relieved the irritability of the stomach. In the mean time, we administered internally calomel, quinine and opium, in the form of pills, every two hours—the two latter articles in liberal quantities. This treatment proved successful, and the patient was up in a few days.

In nearly all the cases of the malignant form of intermittent fever which came under my observation the past season, great irritability of the stomach was present; and in many instances profuse quantities of blood were vomited. In fact, vomiting was the most formidable symptom we had to contend with in many of the cases. I soon found that the usual means employed to allay sickness at the stomach and vomiting were unavailing. My plan, in cases where obstinate vomiting was present, was to cup freely over the epigastrium, and if this did not succeed in arresting it, to apply a blister plaster over the same region. This treatment was adopted by myself in the first case of malignant intermittent fever that came under my observation last season, which I believe was the first that made its appearance in this region. It occurred in August. I continued to pursue this practice in all cases where the stomach was so much involved as to keep up constant efforts at vomiting. I found that it was useless to attempt to arrest this symptom by internal remedies, as nothing was retained. Occasionally it was checked temporarily by applications of mustard to the epigastrium; but to insure lasting relief, it was

necessary to produce permanent counter irritation; and this was effected by cups and blisters.

This plan, with the usual internal means for preventing the recurrence of the paroxysm, was employed not only by myself, but, I believe, by the other practitioners of this place, in all cases where great irritability of the stomach was present, and with very great success; I do not remember a fatal case of the disease within the bounds of our practice.

I had two cases attended with spasms, of which the following is a short account:

Case 1.—Mr. G., a middle aged man, of rather delicate frame and constitution, but generally enjoying tolerably good health, was attacked violently with his second chill on the 7th of September. When I arrived, a few minutes after he was taken, he was on the bed, springing from one side to the other, with his hands applied over his abdomen. Every time the spasm came on, he gave a convulsive scream; said the cramp was in his bowels, and produced the severest pain he ever felt; great irritability of the stomach was present. Large plasters of mustard were applied over the abdomen, spine and extremities; he was cupped at the epigastrium; and internally quinine and opium in free doses, combined with a small portion of calomel, were given. He was convalescent next day, and soon got well.

Case 2.—Mr. C., also of middle age, of strong constitution and robust habit, was attacked about daybreak on the 28th of September with his second chill. I saw him about twelve o'clock on the same day, when reaction was thoroughly established. There was great excitement of the circulation—pulse strong, full and frequent. He was delirious, every few minutes springing from the bed, screaming with cramp in his legs, but recognising you when spoken to in an earnest manner. I bled him from the arm to the amount of thirty-two ounces before any beneficial effect was obtained; the surface then became relaxed. A good dose of opium and quinine was given, with two grains of calomel, to be repeated at intervals of two hours until three doses were taken. The severity of

the spasms was greatly diminished by the loss of blood, and the delirium considerably abated.

Sept. 29. I saw the patient again this morning about ten o'clock; he was nearly well. I gave him a dose of cathartic medicine, and dismissed him.

The following is a condensed account of the case of a lady whom I was called to see on the 28th of September:

Case 3.—Mrs. D., aged about thirty years, was laboring under her second chill when I arrived. She vomited incessantly; complained of great pain in the uterine region, which was of a paroxysmal character, simulating exactly labor pains, but I learned on inquiry that she was not pregnant. Her hearing and vision were so impaired that she could not hear unless spoken to in a very loud voice, and though in the day, she contended that it was dark, and wished a candle lighted. The treatment was pretty much the same as in the preceding cases. I gave her opium and quinine freely, especially the former. Although she is a woman of weakly constitution and delicate health, and unused to stimulants, it required what was equivalent to six grains of opium to quiet her, and this was given her within four or five hours. Cups were applied to the epigastrium, followed by a blister.

Next morning about ten o'clock I saw her again. She was a great deal better; the vomiting had ceased; she was clear of pain, and convalescing rapidly. The next paroxysm was prevented, and she soon got well.

Case 4.—Mr. B., aged about thirty years, in rather delicate health, was taken with his third chill on the 10th of October. When I arrived, he was cold, and was vomiting and purging. He threw up large quantities of blood from the stomach. I cupped him freely over the stomach, and applied an extensive blister plaster to the same part. Mustard was applied to the extremities and spine; and as soon as the vomiting was checked, free doses of opium and quinine, with a small portion of calomel, were administered internally. This treatment was successful, but the patient was several days in recovering; owing to great debility, supposed to result from the loss of so

much blood by vomiting. It would be proper here to remark that the usual means were employed in the above cases, as well as all that came under my treatment, to guard against the occurrence of the next paroxysm. These means were preparations of cinchona, as quinine, ext. cinchonine and quinine; with opium; together with an avoidance of exciting causes.

I found it necessary to take blood from the arm in but a single case, that of Mr. C., above mentioned. Generally speaking, the circulation was rather languid, even after reaction had ensued. In the ordinary or simple form of intermittent fever, I frequently employed venesection with great advantage. The necessity for this practice of course was indicated in such cases by the usual symptoms demanding the loss of blood, such as great power of the circulation, hot and dry skin, pain in the head, hurried respiration, etc. Where there existed much irritability of the stomach, I usually administered the medicine in the form of pill, finding it more readily retained in this form than in that of powders.

I have used what is called the impure sulphate of quinine, or precipitated extract of bark, with great success in the treatment of intermittent fever. I give about as much again by weight of this medicine as of sulphate of quinine. It has appeared to me to have a better effect when combined with diaphoretic portions of ipecacuanha or Dover's powder. I usually preceded its administration by a purgative dose of calomel and rhubarb, four or five grains of the former and fifteen of the latter, where indications for its use were present. I think this medicine has an advantage over quinine, in its being more stimulating.

Quinine scarcely ever failed to arrest the disease, but in a large number of cases it returned in from one to three weeks from the time it was arrested. Some patients were troubled with as many as six or eight relapses.

I succeeded in producing permanent cures, in some cases, with Peruvian bark and carbonate of iron, taken for some time after the paroxysms were arrested with quinine. I have

also destroyed the predisposition of the system to relapse by repeating the quinine, or its equivalent, weekly, just as if the disease had been present.

There is some difficulty, however, in prevailing on some patients to adhere to a prescription of this kind, as they do not like to take medicine when they are not sick.

Arsenic could not be used with safety in many cases, owing to the presence of or tendency to irritation in the stomach and bowels.

February 10, 1847.

ART. IV.—*Modus Operandi and Effects of Quinine.* By DR. M. H FEE, Leatherwood, Lawrence county, Indiana.

Think not, reader, when you see this caption, that I design to explain the vis predilectio of the various organs of the animal economy, by which, as if by chemical affinity, one article of the materia medica is irresistibly drawn to a particular organ, while another article, by this organ, is repelled and forced to seek its affinitive somewhere else. If you come to this conclusion, I am sorry to inform you that you will be sadly disappointed. It does not belong to my province to say why the specific action of terebinthina is spent upon the kidneys rather than upon the heart; or that of secale cornutum upon the gravid uterus rather than upon the bladder; or that of the absorbed virus of cantharides, from a blistered surface, upon the kidneys and neck of the urinary vessel rather than upon the lungs; or why that of aloes should be spent upon the lower bowels rather than upon the upper. These are mysteries beyond my depth, and I leave them for others to speculate curiously upon, with the simple remark, that "they are so, because God made them so;" and here, for the present, our knowledge must rest. My business is to show the effects of quinine on the various parts of the system, and how those effects are produced; not why it affects particular parts rather than others. In the following pages, I design to establish, as

clearly as it is possible to do, short of ocular demonstration—1st, that quinine in small doses is tonic, and how this tonic effect is produced; 2d, that it is antiperiodic, and how this is effected; 3d, that in large doses it is directly sedative, and how these effects are produced; 4th, that it possesses anti-congestive properties, and how it removes congestion; and, 5th, that it possesses no narcotic properties.

Let me simply state that the following thoughts are the fruits of some years' patient investigation and close observation. I give them to the profession for what they are worth. I flatter myself that in the present state of medical knowledge with regard to this article, my observations will not be cast into the common pile of professional rubbish before they have had an impartial hearing. Now to the subject. I proposed—

1st. To establish that quinine is tonic in its effects. That it possesses tonic properties in an eminent degree, when administered in the proper doses (from one to two grains three or four times per day), is amply proved, firstly, by the return of nervous and consequently muscular strength, lost by previous indisposition; secondly, by the replacement of steadiness of brain and nerve, instead of the bedizened state of the former and tremulous state of the latter; thirdly, by the rapid and vigorous reestablishment of the digestive functions and peristaltic action of the bowels, by which perfect digestion and regular alvine dejections are restored; and, fourthly, by the increased power of the heart, by which the flagging and contracted pulse is converted into the full and soft. These various effects are produced by the stamina which is given to the nervous system by quinine, by which is prevented the return of those pathological conditions of the system which constitute disease. I mean particularly capillary congestion for want of nervous power. Quinine lends to the weakened nervous system the power to compel the various organs to perform their functions—to break down all obstruction—to overleap every obstacle. The thus renovated nervous system influences the heart to throw a greater amount of blood to the brain in a given time, by which its bedizened state is fully dis-

pelled. It now accumulates strength in an exact ratio with the increase of its proper nutriment. This increase of energy is then transmitted to the lungs, the consequence of which is increased powers of respiration, by which the oxidation of the blood is more perfect; the consequence of which is a still more wholesome aliment to the brain, enabling it to engender the nervous fluid in fourfold bounty, which it sends with electric speed to all parts of the system, revivifying and reanimating the broken down energies of the system. Thus they go on—brain acting on organs, and the latter on the former, till the health of the whole system is perfectly reestablished.

2d. I proposed to establish that it is antiperiodic. I need say but little on this point to establish what all concede. None, at this enlightened period of its history, are in doubt of its antiperiodic properties. But how this effect is produced there is perhaps not so much unity of opinion. Therefore, to some my thoughts, though perhaps not interesting in point of value, may be as a source of amusement. Let me, for the sake of being fully understood, give my views of the cause of periodicity of some forms of disease. I consider every form of periodic disease, as being *purely* nervous in its origin, and, frequently purely so, throughout its whole course.

The exciting cause of periodic disease, whatever it may be, makes its impression upon the nervous system. Frst, by prostrating nervous energy, which is usually called the first stage, or stage of oppression. This is the only stage in which the exciting cause may, properly, be said to act; the subsequent stages being the results of action of the nervous system, independent of the exciting cause. Second, by producing nervous *functional* lesion, the consequence of which is perverted, or suspended secretions. And, third, sometimes by producing nervous *structural* lesion, the consequence of which is, almost immediate death. Now if the first obtains, an intermittent will be the consequence; if the second, a remittent; if the third, the most rapid and fatal form of congestive disease; such as Johnson tells us of, in his "Diseases of tropical climates." Then, that a periodic disease may be produced, it

is necessary that the exciting cause be weak, or that the invaded system be strong. As a matter of course if the exciting cause meet with strong resistance, it cannot make so great an impression, and vice versa. Then periodicity is brought about by alternate preponderance of the exciting cause and the powers of the system. When the exciting cause begins to invade the system, it brings the powers of the system gradually under its control until it at last, almost, reigns predominant. The tyrant, however, holds his advantage but for a short time. The outposts are but driven in to cooperate with the main force, a sharp conflict ensues, and the enemy is repulsed. But he sees that he has made an impression. If he has considerable force and finds that he has made considerable impression, he will renew the fight in twenty-four hours. But if his forces are weak and the impression on his enemy in the former struggle but slight, he will postpone his next attack for thirty-six, forty-eight, or seventy-two hours. Thus the belligerents go on fighting periodically, until, from sheer necessity, the one or the other is forced to capitulate. Sometimes, however, the system, from force of habit, will fight its battles over and over again, when there is really no enemy in its territory; or, may be, it is a very prudent, warlike demonstration it makes to hold a conquered but subtle foe in subjection. One thing is certain: the system on these occasions is very careful not to uselessly expend any great amount of ammunition.

Pardon this digression; it was made for the purpose of making plain my views. 'Now to explain how quinine puts an end to hostilities: It always acts as an ally with the system, either as an ally of force or that of stratagem. As an ally of force, it assists the system by hourly joining detached forces to those of the system, commencing several hours before the expected attack. It urges the dispirited troops to strengthen their weakened fortifications, to rally their sinking spirits fo a gallant defence, to throw away encumbrance. In a short time, the united forces have made considerable improvement in their defensive structure; they now shout defiance to the

distant enemy. Presently the bugle of the advance guard of the enemy gives the signal of attack; their topographical engineers reconnoitre the allied forces' entrenchments; they see the bustle, animation and determination of the allied army; they report their observations to their commander, who orders a few shells to be thrown, abandons the conflict, calls off his forces, and proclaims the independence of his enemy.

Now to present quinine in the character of an ally of stratagem: He persuades his ally to assume the appearance of a dead army. Here they are, in pursuance of his instructions, all apparent feebleness; they show but little signs of life, less of resistance. General Quinine now retires behind the screen to observe the success of his stratagem. The enemy shortly heaves in sight; they form their forces in battle array; the bugle sounds the charge; they rush to the breastworks, and peer over them with malice in their eyes—when, lo! they behold a prostrate and apparently lifeless foe. They are too magnanimous, too tenacious of military etiquette, to dishonor their weapons by striking a fallen foe. They return and report their foe 'defunct.'

Need I add one word of explanation of this figure? It needs it not. I shall simply say that quinine, given in one gr. doses for seven or eight hours prior to the expected paroxysm, prevents it, by giving the system power to prevent the return of the various pathological conditions of the system which favor a repetition of the paroxysm. In large doses (twenty grains) immediately before the paroxysm, it prevents it by its quieting influence on the nervous system, which, according to my theory, renders the system noninvasive by periodic disease. This will be more fully explained under the next head. Morphine and the various preparations of opium, and also others of the narcotics, have the power of preventing the recurrence of periodic disease, though not to the same extent as quinine, because they do not possess equal anticongestive powers. To close this head, I shall draw the points of difference between the action of small and large doses of quinine, and how they, acting differently, produce the same effects. But few

words are needed. Small doses give tone to the nervous system, to prevent the return of nervous irritation, by actual gain of energy. Large doses have but little tonic effect; consequently we cannot attribute its antiperiodic effects to actual strength imparted; therefore we must attribute its antiperiodic powers to its quieting influence, by which all nervous irritation is kept down till the paroxysmal time passes.

3d. I proposed to show that quinine is directly sedative. The evidence I bring to bear on this point is, first, that when administered in doses of fifteen to twenty grains two hours apart for two or three doses, there is great diminution in the fullness and frequency of the pulse. I have often sat by a patient and felt his pulse sink from twenty to thirty beats in the minute, in the space of two hours, under the administration of this article; whereas, had I not given some sedative, the pulse would have remained stationary, or perhaps have risen. Second: When carried too far, that is, when the system is supersaturated with quinine, great prostration occurs, with small, rapid and weak pulse, scarcely audible motion of the heart, and anxious, hasty and imperfect respiration. These are positive proofs of its sedative powers. Another weighty proof in corroboration of this property is that one or two twenty-drop doses of laudanum will effectually relieve the prostration. Morphine, given in conjunction with quinine, greatly modifies its sedative properties, and has the effect of gaining the desired end with a less outlay of quinine. These sedative effects are produced through the power quinine possesses of lowering excitability by taking away or destroying the impressibility, to a great degree, of the nervous system. This view of the subject is favored by the great length of time required by a fully quininized patient to regain his usual impressibility and standard elevation of pulse. In its effects it appears to be nearly akin to tartar and digitalis.

4th. I proposed to establish that quinine is anticongestive. I establish this fact from the following observations, viz.: First, that a few full doses of this article will immediately effect great and permanent reduction of an engorged spleen. Second,

that a dull, heavy, aching pain of the liver, which is certain evidence of a congested state of this viscus, is removed by a few full doses of quinine. Third, that the pain always found in bilious fever, in the region of the kidneys, is quickly removed through the agency of this article. Fourth, that the scanty secretion of the liver is soon followed by copious bilious stools shortly after the administration of a laxative, when quinine has been freely used. Fifth, that the secretory action of the kidneys is reestablished, whereby a free and copious discharge of urine takes the place of the painful and scanty discharge of this secretion. Now, these anticongestive effects cannot be produced with small doses of quinine, unless congestion be the consequence of actual weakness of nervous energy. Let me here be understood. There are two conditions of the system in which congestion may take place: Firstly, where there is a weakened state of the system from previous disease, an actual lack of nervous energy to keep up the capillary circulation throughout the various viscera; and, secondly, where the nervous energy is normal, but the nerves are too irritable. The effects will be precisely the same, but the treatment is different. The former condition will require tonics and stimulants, while the latter will require something to reduce excitability. Quinine in small doses will be proper in the first condition of the system; but in the latter, mammoth doses must be given, combined with morphine. Quinine in small doses, in a weakened condition of the nervous system, gives power to the nervous system and through it to the circulatory vessels, to prevent stagnation in the capillaries. Where congestion arises from irritability of the nervous system, quinine in large doses acts not by lending power to the nerves to force the blood through the capillaries; but by quieting nervous irritability, it allows the spasm of the coats of the vessels to cease, and the circulation to be carried on normally by the ordinary power of the heart. I think I am now understood.

5th, and last. I proposed to show that it possesses no narcotic powers. Some late writers urge the following symptoms as evidence of its narcotic action. First, that when giv-

en in considerable doses, it produces ringing in the ears; partial deafness and blindness. Second, that it produces flushed face with fullness of the vessels of the head. I shall endeavor to account, in a more rational manner for these symptoms, than to attribute them to narcotism. The ringing in the ears, with partial deafness and blindness, are caused by the reduction of power the quinine effects in the nervous energy of the heart, by which less blood is thrown to the brain in a given time, consequently the brain receives less of its proper nutriment, which produces an anemic state of the brain, such as would occur in an excessive loss of blood. This is the work discernible, by being contrasted with the hyper excitement of the brain, just before, from the influence of fever. There is one fact which I can bring to prove the correctness of my position. When the brain is in this state, if the erect position be assumed, all the symptoms will be increased, but if the head be let down even with the shoulders, the symptoms will be ameliorated. The flushed face may be accounted for, in the same way that the injected eye, and pseudo-inflammation of the brain are accounted for, in excessive losses of blood. Though in complete quininism I have never observed this state of the face. Where it has been noticed, I presume the dose has not been sufficiently large to give play to its sedative properties. In full quininism, I have invariably found an exsanguine countenance, cold hands and feet, wlth overloaded heart, lungs, and large arterial trunks. In short, a want of power in the heart to carry on the circulation.

Heltonsville, Ind., Dec. 14th, 1846.

ART. V.—*Notes on Medical Matters and Medical Men in Paris.* By DAVID W. YANDELL, M.D., of Louisville, Ky.

In my last letter I alluded to the lecture of Professor Dumas, introductory to the winter course of instruction in the Ecole de Médicine, as a discourse of great beauty and eloquence. So much of it as related to the life and services of

his eminent friend and associate, Bèrard, would probably be uninteresting to the readers of the Journal; but the conclusion of it presents views of great and general scientific interest. I propose to give a translation of the conclusion of the lecture.

In southern seas, remarked the distinguished professor, there are islands which slowly elevate themselves from the bottom of the ocean. Formed by polypi, these isles are visited by certain tribes of plants, and become the seat of an active vegetation; the remains of these plants collect upon the surface and form a soil, in which other races of vegetables spring up; animals and men seize upon them, at length, and the germ of a new empire appears upon the earth. It is curious to observe, that these corals direct incessantly and with unwearied energy their labors from within outwards, by which the land is made to encroach continually upon the sea. What peculiarity in their organization, what law governing their countless family, leads to results so favorable to conquest, that their works gain unceasingly upon the empire of Neptune? Do not lose yourselves in vain conjectures. We shall see that the sublime result is brought about by an agency simple in its nature and easily understood.

These polypi have need of calcareous matter to construct their dwellings; they find it in solution in the waters of the sea, and separate it in order that it may traverse their earthy tissue. This calcareous matter is rare within those immense bodies which elevate themselves from the sea, while it abounds without; and here, according to M. Forchammer, lies the whole secret of this providential form, of this eccentric tendency of their labors. Here is the part that mineral matter in general, that calcareous matter in this particular case, plays in the development of organized beings. Is not the spectacle which nature offers, in the sublime simplicity of her means, full of grandeur? Rain-water loaded with the carbonic acid of the air falls upon our limestone hills; it then becomes charged with carbonate of lime, reaches the Seine, is borne to the ocean, where the waves carry it away, and, ere long

seized by microscopic animals, it adds an imperceptible stone to the formation of the new empires which are preparing for future humanity.

The phosphate of lime constitutes the base of the skeleton of all the superior animals, and is found both in the tissues and liquids of their economy. Analysis detects it in the inferior animals, and in the plants themselves. The phosphorus which this salt contains is found in milk and analogous liquors, and figures in its turn in a mysterious manner in the composition of the cerebral and nervous substance. But phosphorus and the phosphate of lime are so rare in nature, that, struck with the difficulty experienced by the earth in furnishing it to plants, an illustrious chemist exclaimed, "Rome fell when Sicily, drained of her phosphate of lime, was no longer able to furnish the grain necessary for her immense population." It is necessary that this phosphate of lime shall return to the earth, and to insure this, what simple and ingenious means does nature employ! Collected from the soil by the plants, these phosphates pass into the herbivorous animals, and from them into the systems of the carnivorous tribe, where it is concentrated. From this moment, everything tends to disperse them. If the animal dies, a fly deposits its eggs in the flanks of the body, millions of larvæ are generated, which feed upon the flesh and blood, pursue the course of their metamorphoses, and soon taking wing, in their turn bear away and scatter in all directions the phosphates which they have assimilated.

It is not without an end that nature has ordained, that the putrid remains, naturally a prey to the insects which devour them, should be, to animals higher in the scale of organization, objects of profound repugnance. Repulsed by the aspect and by the odor of these infectious bodies, they witness afar off the part that is here accomplished.

If the insects everywhere disseminate the phosphates contained in the flesh of dead bodies, hyenas, jackals and dogs devour the bones, and in their turn play the same part. But this is not all. Left to themselves upon the soil, the bones

are gradually divided, and at length disappear. What new force intervenes to separate their elements?

According to my view of the matter, it is water, not pure, however—for in pure water phosphate of lime is insoluble—but water charged with carbonic acid—rain and spring water, that which everywhere moistens the soil. By the aid of this carbonic acid, phosphate of lime is dissolved, the bones crumble, and the last vestiges of animal life disappear. As you already know, it is this carbonic acid dissolved by the rains, entering into plants and decomposed under the influence of the solar rays, which forms their principal nourishment. Admirable mechanism; by which, according as the carbonic acid is consumed in the leaves of plants, phosphate of lime again becomes insoluble and is deposited in the vegetable tissues! What part is here played? One which is indispensable; for it is by it that all azotized matters resist the action of water, which tends to dissolve, to swell, and to separate them. It gives to our tissues their stability, renders our bones firm and unyielding, while it protects in the same manner by its presence the tissues of the plants.

Perhaps you may conceive that at the moment at which a molecule of carbonic acid is decomposed in a leaf—that at the moment in which the phosphate of lime held by it in solution becomes free—it is then that, seizing the albumen of the plant, those cloudy flocculi are produced which are the first origin of the cellules which one sees appearing every moment.

Return now and follow the air which penetrates the cells of your lungs; which is dissolved in your blood, there to burn the carbon which it contains, and reproduce the carbonic acid which plants constantly decompose. The venous blood will now contain carbonic acid, which is capable of rendering soluble the phosphate of lime. The venous blood will tend then, as we have seen rain-water does, to dissolve our bones, to swell and break down all our tissues, and all the cellules which compose them. Under its influence, the animal matter is carried away to be burned, in order to generate that heat which

is necessary for the system, and the phosphate of lime dissolved, in order to be evacuated by the urinary secretions.

Thus a drop of water charged with carbonic acid, and dissolving the phosphate of lime, struck by the rays of the sun—behold the life which commences! In a drop of venous blood saturated with carbonic acid, and wasting our tissues, from which it has removed their phosphate of lime—behold the life which is finished! In the plant, it is a cellule which is organized; in the animal, a cellule which is dissolved: in the former, carbonic acid is decomposed; in the latter, carbonic acid is reproduced: in one, phosphate of lime becomes insoluble; in the other, it is redissolved. And these feeble efforts people the earth and the seas with numberless beings, who embellish or animate its surface, who feel, who think, and ever bear testimony to the omnipotence of nature.

Shall I show you now sulphur traveling from one kingdom to another, rising from the seas with vapor into the atmosphere, returning from the air to the soil, in plants, in animals, and redescending by the rivers, which again transport it to the sea? How simple, and yet how efficacious and sure is the mechanism of all these mutations! The sea contains the sulphates which nourish the mollusca. The humors which they secrete, greedy of oxygen, convert these sulphates into sulphurets. The water of the sea liberates sulphuretted hydrogen; the air carries it rapidly away until it encounters the remains of certain plants, whose pores by a mysterious power oblige it to burn itself, and thus produce sulphuric acid. The sulphates from this moment are reformed. This sulphuretted hydrogen, which is discharged from animal and vegetable matter in a state of decomposition—from sewers, from the subsoil of our streets—which tarnishes all our pictures—this sulphuretted hydrogen is one of the most indispensable terms of one of those grand equations by which the balance of nature is preserved. Two millions of kilogrammes of sulphur are required annually by the population of France, and not less than ten millions of kilogrammes will represent the mass

contained in the whole of the organized beings that inhabit this portion of the globe.

The sulphates which the soil receives yield their sulphur to the plants, which in their turn furnish it to the animals; and in this way the earth would soon be exhausted of this element so necessary to the being of plants and animals, if the sea did not continually supply it. Admirable laws of nature, which incessantly array against each other the two kingdoms—which, in permitting the multiplication of animals, augment at the same time the growth of plants destined to become their food —which order, that as rapidly as vegetation increases, the air that it purifies and the resources that it develops, may be in their turn an exciting cause of the production of animals!

Shall we present to your attention the singular contrast between potash and soda, the former of which concentrates itself especially in plants, the latter particularly in animals? Our excretions carry off the potash, and return it to the earth, to the great benefit of vegetation; the water that we drink always contains the marine salt; our aliments abound in it, and thus is preserved, notwithstanding the continual losses, that which is required by our blood. This potash is soluble; it is washed from the soil into the rivers; from thence it is borne to the sea; and to what artifices has not agriculture resorted in order to restore it to the impoverished lands? It is potash which is contained in the ashes that are spread upon our fields; it is that which gives in an important degree richness to the manures of our farms; it is that which the lime thrown upon the soil gradually displaces in the alkaline silicates contained in all the argillaceous earths. While soda abounds in the waters of the sea, potash is found there also; and the marine plants, equally sensible in this respect with the terrestrial plants, condense in their tissues the salts of potash, and retain in the smallest possible proportions the marine salt, which traverses their tissues in such enormous quantities.

Is it not by returning to the soil exhausted of its potash this alkali, which his wines continually hold in the form of cream of tartar, that the agriculturist of the environs of Montpelier

manures with such success his vines by means of sea-weeds? Is it not also in a great measure owing to the salts of potash, existing in these sea-weeds, so abundant on the shores of the ocean, which, thrown upon the fields of the coast, insures them such invariable fertility?

Having been proved that this sea-water is so rich in salts of potash, why should it not itself become the base of an excellent manure? I should rejoice if this thought might be confirmed. I would like to see this water of the sea, into which all the residues of life are drifted and there mingled together, separated into two parts obedient to the hand of man—yielding him, in the crystalizable salts which he has abandoned, soda, a true aliment for him and the animals that are associated with his destiny; leaving, in the salts which do not crystalize, potash, an element indispensable to the vigor of the plants which he cultivates.

These great examples suffice. It is unnecessary to describe how iron is concentrated in the leaves of plants, in the blood of animals; how the fluoride of calcium follows the course of phosphate of lime, and associates itself with it in the enamel of our teeth; how silex enriches the grasses, and exists pure in the blood of animals; how, on the contrary, it takes the place of their soft tissues in so many fossils.

The police of Paris watches over the restaurants with a keen eye, and all its scrutiny is demanded by the public health. Animals now must all be killed within the *Barriérs*, and so strict is the watch that it is nearly impossible to introduce flesh forbidden by law on account of its unwholesome character or its being that of interdicted animals. Some years ago large quantities of horse flesh were constantly sold at the cheap dinner houses for beef. In a short time, two thousand kilogrammes were intercepted by the police as it was about to enter the city. At another time, the officers seized upon nine hundred kilogrammes of horse oil, which was to have been used by the lower restaurants in sauces instead of butter. A lady of wealth in the Place Vendôme used a *milk bath* for her health,

and the milk was afterwards sold to the keeper of a coffee house in the Rue St. Honoré, and served out to his customers in their coffee. A baker was convicted of having conveyed the urine from the *lieux d'aisance* into his establishment to save the expense of water. Where such atrocities are committed, it is needful that there should be a vigilant police.

The celebrated Italian physician Tommasini died on the 26th of November last, at Parma—where he was born in 1769—of acute bronchitis, in the 77th year of his age.

On the dissecting table of one of my acquaintances at the *Ecole Pratique* is a young subject, in the head of which an unusual distribution of the temporal artery exists. The common carotid divides below the level of the cricoid cartilage. The temporal artery comes off along with the occipital by a common trunk of an inch and a half in length; the temporal proceeds from its anterior side, runs along the inner surface of the posterior belly of the digastric muscle, and external to the styloid process, being concealed in this position by a portion of the parotid gland. It then proceeds upward and outward in contact with the forepart of the root of the mastoid process; afterwards it forms an arch, the concavity of which looks forward to the external ear, behind which it curves to gain about two inches above the zygoma, its usual situation, when it divides into its principal branches. The internal maxillary furnishes a small posterior auricular artery, and also a little higher another branch is seen in the normal position of the trunk of the temporal artery, which sends off the anterior auricular and transversalis facial arteries as well as smaller twigs to the neighboring parts.

Dr. Jaesche, of Minsk, has published a method of treating *prolapsus ani* without the knife, which possesses in his opinion many advantages over the usual operation. The treatment consists in applying to the anus, or even introducing a line or a line and a half into the rectum, a piece of lint dipped in a

weak solution of nitric or sulphuric acid, though the former is preferable, being less irritating and painful. The pain which succeeds this cauterization yields in a short time to the application of lint saturated with olive oil, and the excoriations recover in the space of a few days. One or two cauterizations have generally been sufficient in Dr. J.'s hands for the complete recovery of the numerous patients whom he has treated for this affection.

M. Guillon presented, at a late meeting of the Academy of Medicine, an individual on whom he had successfully operated for a fibrous and very hard stricture of the urethra. Before the operation, he was unable to introduce into the canal the smallest sound; afterwards, he could introduce one of considerable calibre.

The following interesting case, published in a German journal, occurred in the practice of Professor Naegelé, jr., of Hiedelberg, son of the celebrated accoucheur of that name: A woman, aged thirty-two years, a *primipara*, arrived at the term of her pregnancy; at the moment when labor commenced, auscultation was practised, and there was distinctly heard in the left hypogastric region the two sounds of the fœtal heart and a simple *bruit de souffle* of the cord, and in the right hypogastric region quite as distinctly other two beats. Two operators applied the stethoscope, one to the right the other to the left side of the woman, and found the beats of the heart of the fœtus and of the cord more frequent on the right than the left. At a later period, when the right fœtus made more movements, the pulsations were forty for the heart, and thirty-six for the cord, which would make a difference of sixteen pulsations in a minute. After the delivery of the first child by the forceps, auscultation was again performed, and pulsations of the fœtal heart, both in the right umbilical region and left hypocondria, were clearly heard. The head of the second fœtus presented itself at the orifice in the second position; the noise of the heart heard in the right side appertained

to this fœtus, which was delivered like the other by the forceps. Pulsations of a single heart were now heard, which were produced by the third fœtus, which came after a time into the world without the aid of art. Fifty-seven hours were occupied by this labor.

The diagnosis of the presence of more than one fœtus in the uterus was founded upon the two double sounds of the fœtal hearts. It was not until after the birth of the first child, when other distinct double sounds were heard, that it was supposed to be a pregnancy with three children. The noise of the heart of the third child had not been heard in the commencement of labor, probably because it was placed behind the others, towards the spine of the mother. The uterine *bruit de souffle* was neither more loud nor more extensive than in ordinary pregnancy.

In the *Bulletin de Therapeutique* there is a case of chorea reported, which was cured in the wards of M. Trousseau by strychnine. The patient, a girl of seventeen years, was seized in January, 1845, with chorea, which seemed to be produced by suppression of the menses. The menses reappeared in the course of six weeks, and the chorea disappeared about the same time under the influence of sulphureous baths. In October, 1845, the menses were suppressed anew. The chorea reappeared, occupying this time both sides, with a predominance in the left; there was marked diminution of sensibility and power of articulation, and manifest enfeeblement of the intellect and memory. The patient entered the Necker hospital on the 22d of December.

M. Trousseau prescribed the syrup of strychnine in doses gradually increased, containing at first the fifth part of a grain of strychnine, which, when it had been augmented to a grain a day, produced a very sensible therapeutic effect. The chronic agitation almost entirely ceased, the intelligence became much more clear, the memory much more active; but the patient still complained of lively itchings of the head, much stiffness of the jaws, without any convulsive twitchings elsewhere. The

syrup was continued during some days in the same dose, then the quantity was progressively augmented until the patient took two grains of strychnine in the twenty-four hours. After two months of treatment, the chorea completely disappeared. The administration of the strychnine was not wholly suspended at once, but gradually diminished. The patient quitted the hospital entirely recovered.

The menses had not reappeared, but their suppression was now owing to her conception. The cause which produced the chorea in the first instance was evidently the suppression of the menstrual flux. It is probable that this is one of the most common causes of chorea, though it is seldom that the influence of the menstrual discharge in the production of this disease is so distinct. It is equally important to remark the rapidity with which the recovery was effected. The therapeutical application of strychnine is a difficult medication, requiring great prudence and care; at the same time, it is one of the most powerful remedies of the materia medica. This, however it may be to others, to me is a very interesting case.

I was disappointed in Andral, who lectures on pathology and general therapeutics at l'Ecole de Médicine, as a lecturer. He reads most of his lectures, and does so very rapidly, not as distinctly as some, hardly ever lifts his eyes from the paper, and seldom makes a gesture. Gerdy, one of the surgeons at la Charité and lecturer on pathological surgery at l'Ecole de Médicine, is a pleasant speaker, rapid, distinct, animated, becoming at times very earnest. His voice is not a good one, lacking compass. He is a fine sized man, with large head, thick black hair, which is here and there sprinkled with a few gray hairs, black eyes, and large nose; indeed, all his features are large. His age I should take to be fifty years.

In my last letter I spoke of M. Roux and the ligation of the femoral artery for what he pronounced to be an aneurism of the head of the tibia. The diagnosis of this case has created an unusual amount of interest. The editor of the *Gazette des Hopitaux*

differs from M. Roux, and believes the affection to have been a bloody tumor complicated with cancerous degeneration, instead of simply a *tumeur fongueuse sanguine*, analogous to erecetile tumors of the soft parts, produced by dilatation of the arterial capillaries of the substance of the bone. The difficulty of diagnosis between an osseous aneurism and a cancerous tumor of the bones accompanied by pulsations, is extremely great. The points of resemblance between the two are numerous and striking; both are intimately connected with the subjacent bone; a loss of substance of the bone is distinct in each; in both, an osseous lamella affords crepitation; an expansive pulsation and fluctuation is detected in each; and lancinating pains, which not long ago were considered as pathognomonic of cancerous affections, are experienced alike in osseous aneurisms and other tumors which present no degenerations of a grave description. M. Nélaton, surgeon to l'Hôpital St. Antoine, who has published an admirable volume entitled "Traité de Pathologie," and is on the eve of bringing out a second, gives in substance the following, which may assist in distinguishing the two affections:

1st. Osseous aneurism, existing without any complication, disappears completely or almost entirely under continued pressure; while an encephaloid tumor, although it may be made to sink in some degree under pressure, always presents a mass of cancerous tissue which cannot be dissipated.

2d. Cancerous tumors of the bones which present pulsations are accompanied, ordinarily, by a *bruit de souffle*, which is never heard in osseous aneurisms.

Dr. Marati, of Naples, in a practice of twenty years, has had occasion to treat a great number of patients afflicted with malignant pustule and anthrax. He has never employed the red iron nor any other caustic in cases of this kind, but has had recourse exclusively to extensive frictions with mercurial ointment morning and evening; he has applied thus from a hundred to a hundred and twenty-five *grammes* of the ointment in a day to the red and tumefied surface, and by the aid

of this simple remedy alone, has succeeded in all except two cases, upon whom the disease had made too great progress before the friction was commenced, in circumscribing the affection, putting a stop to accidents, favoring the fall of the eschar, and finally in obtaining a rapid recovery.

In the great number of cases submitted to his observation, he has not seen a single one in which salivation was produced by this energetic hydrargic treatment, and he has administered it indiscriminately to old and young subjects, adults and pregnant women in all stages of the disease.

This remedy is rendered even more precious from the fact of the practitioner's being able to associate it with cauterization and the internal use of the spiritus mindereri, or of the ammonia itself, in doses appropriate to the condition of the patients.

M. Velpeau delivered, a short time since, a very interesting lecture on inflammation of the submaxillary and sublingual glands. He gave the following as signs which establish a distinction between inflammation of the ganglia and that of the salivary glands:

In the glands, the inflammation commences in the interior of the mouth; the pain is felt in this point: in the ganglions, the contrary is the case. In inflammation of the glands, the salivary function is troubled; the mouth is probably dry at first, then the secretion of saliva is augmented; there is no external inflammation, no redness of the skin, no *empâtement;* the tumor is movable: these signs are never present in ganglioni phlegmasia. In the latter (ganglioni phlegmasia), suppuration is very easy: in the glands, resolution is most frequently the result; suppuration occurs with difficulty, and inflammation gains but a small portion of the neighboring tissues: the opposite is witnessed in inflammation of the ganglia, eight days hardly elapsing without the formation of pus. Finally, when the salivary glands are the seat of a phlegmasia, the tongue is pushed against the palate, and deglutition is perhaps embarrassed: when it is the ganglions which are affected, the

patients may complain of pain in swallowing, but there is no mechanical obstacle.

The treatment of these two affections, although alike in some respects, differs in many points. In inflammation of the ganglions, venesection is generally useless, while leeches produce a good effect; then after some days comes the surgical treatment, afterwards cataplasms and vesicatories. In inflammation of the salivary glands, bleeding from the arm is more efficacious than topical bleedings; afterwards a tolerably deep incision by the mouth stops, ordinarily, the inflammation, and brings about a speedy amelioration.

M. Louis, at the *Hotel Dieu*, had in September last a case of pulmonary consumption, the march of which was rapidly to a fatal termination. The patient, admitted on the 14th, was a woman æt. twenty-eight years, a semstress of delicate constitution, lymphatic temperament, who has borne two children at four years' interval, and enjoyed habitually good health. The first confinement was happy, the second was also terminated easily, but a fortnight after she was attacked with diarrhœa which has continued ever since. Four months have elapsed since the last confinement. The patient dates the beginning of the affection fifteen days after. It made its appearance in the form of a very abundant diarrhœa, mounting as high sometimes as eight or ten stools during the day. Sometimes small quantities of blood were mixed with the fæcal matter, which, save that it was more liquid, resembled the white of an egg. Slight pain in the abdomen, cough which has existed about the same length of time as the diarrhœa, small, however, and until lately dry: some sweats at night; no pain in the breast.

Bronchial respiration at the summit of the right lung, and broncophony. The respiration is rude and a little *soufflante* throughout the whole extent of the lung: sufficiently good in the left. Some pricking in the throat. The voice is unaltered. Interrogated as to the seat of her suffering, she places her hand in the region of the larynx. She complains also of

a pricking and uncomfortable heat behind the sternum. This pricking provokes the cough, which, without being exactly painful, is laborious. After fits of coughing the pit of the stomach becomes painful, owing probably to the fatigue caused by the shocks. Since the last twelve days she has expectorated after coughing, without difficulty, a thick, white, viscid matter, a little gray in places, without traces of either blood or pus. No appetite; lively thirst. Food appears bitter to her. The abdomen, a little sensible to pressure, is well formed, presenting no tumor even when strongly pressed. Numerous stools; eight or ten a day. Rice water, syrup of gum, with extract of opium injection, laudanum 10 drops; diet.

16. The stools have been less numerous than the day before yesterday; only one during yesterday. Vomited three times. The general feebleness is very great. She replies slowly and with difficulty; countenance sunken; skin moist; pulse frequent, 104 *a* 108; sensation of weight and heaviness about the head; movements slow, intellect clear; no vertigo; a little drowsiness.

The phenomena furnished by auscultation remain the same: some crepitation at the middle part of the lung. Two pills of the subcarbonate of iron; laudanum injection; diet.

19. Six liquid stools. Since her entry the patient has grown sensibly thinner. Feebleness increased every day: visage greatly altered. The eyes are surrounded by a bluish circle. There is a pale yellow tint of the skin; lips pale; projecting cheek bones. Same treatment.

23. Continuance of the diarrhœa; the tongue is furred in the middle, and red upon the edges. No appetite; lively thirst. Respiration grows more and more laborious every day. Expectoration abundant, characteristic, containing pus, evidently tuberculous, swimming in a mucous liquid. From this moment all the above mentioned symptoms became greatly aggravated. Seven to eight stools a day; pain in the belly; emaciation progresses rapidly; pale yellow tint of the skin; frequent cough; abundant expectoration, characteristic. The eyes are deeply sunken in the orbits. Feebleness ex-

treme. The patient nevertheless says she does not suffer, and complains only of a little oppression and difficulty of respiration. She died on the 5th of October. The autopsy revealed numerous granulations of the left lung, especially at its summit, and a considerable crop of tubercles in the crude state, of very small volume. The right lung contained a large cavern in the summit, which appeared of recent formation. Numerous granulations and tubercles, some in the crude state, others beginning to soften, were observed throughout the entire extent of the organ. The mucous membrane of the large intestines was of a bright red color; no tubercles were found in the mesentery. Other organs healthy. The condition of the large bowels accounts for the obstinate diarrhœa in this case.

Acute phthisis, says Lænnec, is the product of a tuberculous affection of the lungs, which, latent, during a longer or shorter period, unmasks itself suddenly, produces an acute fever, emaciation and generally symptoms so grave, that the patient is carried off perhaps in six weeks, or a month, and sometimes in less time.

Sometimes the march of acute phthisis is so rapid, that it lasts only two or three weeks, and M. Louis has detailed, in his work on pulmonary phthisis, the case of a man who died in twenty days after the first signs of phthisis were observed. The lungs contained caverns.

Whatever may be the opinion adopted, as regards the above described case, in relation to the latent condition of the tubercular deposit, it is unquestionable, that among certain subjects phthisis progresses as an acute disease, especially in the period of softening. It is allowable to suppose, in the case in hand, that the disease existed for some time before it manifested itself. Many authors, we know, state, that when a phthisical woman conceives, the phthisis remains stationary during pregnancy, and assumes a new and greater intensity a short time after her confinement, which seems to become the signal for the revival of the disease. There are other circumstances which hasten the march of phthisis; such are small-pox, measles, scarlatina, and especially bronchitis and pneumonia.

M. Béhier, one of the physicians of *La Charité*, has had during the last few weeks several interesting cases of small-pox in his service. A female, twenty-eight years of age, slept for some nights next to the bed of a patient laboring under variola: one morning, in making up a bed, she touched his person. Twenty days after she was seized with chilliness, followed by heat and a sensation of general lassitude, with pains in the loins, felt particularly in movements of the limbs. She complained of soreness of the throat, with tolerably intense oppression; the tongue was white, the eyes weeping, and the palate the seat of papulæ. The most remarkable phenomenon in this case, and it is on this account that I have reported it, was the form and volume of the pustules, which were small, pointed, resembling simple acne, and not presenting the appearance of pustules with wide bases which are observed in variola. This modification in the eruption alone gave rise to some fears of unpleasant complications. And this is a character which it is well to bear in mind, that whenever the pustules present themselves in this way, there is reason to anticipate an abnormal march, or some grave epiphenomenon in the disease. The third day a violent delirium declared itself; the patient jumped out of bed and ran across the ward. She complained greatly of her throat: her pulse was at first 74; then 84; then 90. Six leeches were applied behind each ear. Calomel was given internally; two large blisters to the lower extremities, after having previously used sinapisms. The third day after the delirium the pustules became less distinct, and the symptoms improved. This is a remarkable fact—the patient had been vaccinated, and should have had varioloid; but, on the contrary, her symptoms were exceedingly grave. It is generally the case, when a patient who has been vaccinated is attacked with variola, that the disease is more mild than if vaccination had not been performed. An opinion prevails very extensively among physicians, that in variola the pustule is umbilical, or pointed, and that it is not so in varioloid. This is proved to be altogether erroneous. In variola, umbilical pustules are but rarely

seen, and the only real difference between it and varioloid is in the time of desiccation. In the former, between the eruption and the desiccation, there is a distinct period, while in varioloid the pustules appear, become dry, and the scales are formed and fall off very rapidly.

There should be no importance attached to the umbilical shape of the pustules in these diseases, according to M. Béhier, who has made extensive and careful researches on the subject, both at *l'Hopital Saint Louis*, and *l'Hopital des Enfans*, where he has had numeruus opportunities of observing these diseases. As a general rule, variola does not offer umbilical pustules. The history of this patient, after her recovery from variola, shows the possibility of complications posterior to the principal affection. The parotid of the left side of her neck inflamed, and the abscess was opened. Erysipelas seized first this side, and afterwards the other, and was followed by anasarca, which commenced in the face, obstinate diarrhœa, and albuminous urine. The same remedy was employed in this condition, as in a similar case supervening upon an attack of scarlatina: vapor baths produced sensible amelioration of the symptoms.

In the treatment of hydrocele, M. Blandin does not believe that the nature of the liquid injected into the vaginal tunic exercises any sensible influence upon the results of the operation. He employs, with equal confidence, the vinous decoction of roses de Provins, tincture of iodine, etc. It is only necessary that the liquid should possess irritating properties, in a sufficient degree to provoke an adhesive inflammation, in order that its use may be followed by success. He prefers a simple mixture of three parts of water to one of rectified alcohol. This liquid possesses the advantage of being always at the hand of the surgeon, and not requiring, as the vinous decoction does, a manipulation more or less tedious; and what is of more importance, it possesses over the preparations of iodine the advantage of leaving no stain on the instruments, or on the linen of the patients.

In the *Journal Connaissances Médico-Chirurgicales*, and the *Gazette des Hopiteaux* I see favorable notices of the *monésia.* One writer thus speaks of it: Monésia is easy of administration : it is active even in minute doses, 12 *a* 16 grains per diem being usually sufficient. It may be given in the form of pills of 4 grains each; of syrup which contains 6 grains to the ounce; of alcoholic tincture, which is employed both externally and internally, of the strength of 30 grains to the ounce: finally, it may be used in the form of an ointment, composed of one part of the extract to seven of hogs' lard. These proportions of course may be modified at the discretion of the physician.

We have noted, continues this writer, that in all cases where astringents are indicated *monésia* is a precious remedy; like catechu it is a powerful astringent and at the same time stomachic; it neither irritates the stomach nor dries the mouth. The preparations of monésia may be regarded as specifics in passive hemorrhages, diarrhœas and chronic catarrhs, and in many diseases where there is feebleness and softening of the organs or tissues. Our successes have constantly verified these opinions. We see with regret, that a substance so efficacious and yet so incontestably harmless is not oftener used in therapeutics. It has rendered service in that intestinal phlegmasia, designated cholerine, which prevailed with so much severity in London, and which is perhaps as frequent though less violent, at Paris. In fact, against the fluxes of the belly, these serous diarrhœas sometimes sanguinolent, monésia is an excellent remedy that we cannot too much recommend to our brother practitioners.

Recently we have obtained by its use the cessation of a hematemesis which had resisted the usually employed remedies. We conclude by citing some cases.

The first of these was an affection bearing a close resemblance to the *noli me tangere*, and consisted of a button situated upon the cheek: a great number of topical applications had been used without result; cauterizations of various kinds had only brought the little tumor to a state of ulceration with-

out producing cicatrization: we were disposed to resort to the arsenical paste when we were struck with the idea of sprinkling this ulcerated surface with the powdered extract of monésia: prompt and complete success was the result, and for two months the recovery has been maintained. The other observation, not less remarkable, relates to an excoriation of rather a carcinomatous character upon the end of the nose—an excoriation which had existed three years, and which began to extend itself notwithstanding the well-advised treatment which had been practised; cauterization had been resorted to without avail. We prescribed lotions, frequently repeated, with water containing 60 grammes of tincture of monésia to the pint; and we have obtained a complete and durable recovery.

The present number of hospitals or almshouses in France is 1338, having a revenue of 53,632,992 fr. There are 39 institutions for the education of the deaf, dumb and blind youth of the kingdom, in which at present 1675 pupils are receiving instruction. The number of deaf and dumb persons in France is computed at 20,000 to 25,000, and the number of blind at 12,000 to 15,000. As to the *enfants trouvés*, the number cannot be accurately made out, but 123,394 have been received at the Foundling hospitals, of which there are 144, in a single year. The number of indigent lunatics is 12,286, who are supported by the government at an annual expense of 4,326,138 francs, and by the humane and judicious treatment a large number of these unhappy beings are every year restored to reason, and to their families and society.

In a late English paper I observed an analysis of gun-cotton made by Professor Graham, of London. Exploded in a glass tube so as to collect the gaseous products, 53.33 grains of the cotton yielded 100 cubic inches of gas, of which the composition was as follows:

Carbonic acid	14.284,	or 2	volumes;
Cyanogen	7.143,	or 1	volume ;
Nitric oxide	35.715,	or 5	volumes;
Carbonic oxide	35.715,	or 5	volumes;
Nitrogen	7.143,	or 1	volume.

Besides these aëriform bodies, a portion of oxalic acid is precipitated, and a considerable quantity of water results from the combustion.

Near the *Marché neuf* stands a plain Doric building of one story, divided into several rooms, and a large entry or hall. Here, in a little chamber separated from the entry by windows running from the ceiling almost to the floor, are deposited for the space of three days the bodies of those unknown and unfortunate beings who have committed suicide, or met with death by accident. This room contains ten tables, or inclined planes, upon which the dead are laid: over their heads, upon pegs which are driven around the wall, are hung their clothes; and these are allowed to remain long after the bodies have been removed, in order still further to promote the recognition of their owners. After the lapse of three days, unless the bodies are claimed, they are removed and buried at the public expense.

The same feeling of unnatural curiosity which prompts hundreds of people to flock about the scaffold to witness the dying struggles of a fellow-creature, keeps constantly in and around the *Morgue* numbers of men, women and children, ever on the alert to see the cart drive up which contains the remains of some unhappy Frenchman, who, tired of the fierce struggle of life, has shuffled off his mortal coil, by a somerset from a window in the fifth story, or a dive into the Seine from one of the many bridges which span it. Or, perhaps it may be the body of a poor girl, who listened to the voice of deceitful love, was seduced, became a mother, and then, to quiet the stings of conscience, or appease the stern calls of hunger, swallowed a few grains of arsenic, or a few drops of prussic acid, Or, as the other day when I passed it, the "green-eyed monster" may have gained the ear of some tricky husband, and prompted him to kill and quarter the supposed, perchance the real, author of his dishonor.

The crowd is a motley one, and, of course, has its Billy Sniffle. The mender of soles crosses over from his shop,

which is not far off. As he enters the door he ties the wax-ends about his neck that they may not be lost while he elbows his way towards the tables. After having feasted his eyes to his heart's content, he turns and addresses himself to the woman by his side, who, as is usual in such cases, is acquainted with all the circumstances of the catastrophe. She begins her narrative, and soon becomes a centre about which a group collects and listens, as she oracularly delivers what she has heard "that somebody told some one else." The market woman passes by; she cannot resist the temptation, but, looking about for a convenient place where she may deposit her large and heavily loaded basket, soon has thrusted her nicely handkerchiefed head into the assembly, where she drinks in every detail. Thus filled, she takes a long look at the bodies, returns, asks some one to assist her to shoulder her basket, moves on, and, in turn, becomes herself a magnet, around which curious women and wondering children gather to listen to her narrative, and at last go away to repeat the sad, eventful story.

Many garments, of males and females, hang on pegs around the room. They are of all descriptions—here a gown, there a coat; here a hat, there a bonnet; on this peg a pair of coarse, heavy boots, on that kid slippers; here a cravat, there a shawl; now a cloak, and by its side a chemise; here a pair of fine black trowsers, and opposite to them the patched and greasy breeches of the laboring man, who, perhaps sick of his destiny, unknown, friendless, and in want, loosed the silver cord by blowing his brains out with powder and lead that he had purchased with his last *sous*.

The bodies of about three hundred persons are annually exposed at the Morgue, of which five-sixths are males.

Having spoken of Morgue, the *dead house* of Paris, I will conclude by a brief reference to the final resting place of the living of this great metropolis. *Pere la Chaise*, the chief cemetery of Paris, was at one time the country seat of the Jesuits. It was consecrated as a burying ground in 1804; it

lies on the north-east of the city, on the side of a hill, and contains one hundred acres, surrounded by a wall. Besides the many who go there to hang garlands on the graves of their friends and relatives, the number and beauty of the tombs, the extensive panorama which is caught from the hill top, and that undefined interest and curiosity which prompts one to visit the resting place of the dead, contribute, on every beautiful day, to assemble hundreds of people within the enclosure; and, according to my taste, there are few places about Paris which so well repay the time and trouble of a visit.

The second day of November is *le jour des morts*, (all-souls-day,) the ceremonies of which interest a stranger, and especially one from a protestant country. For several years the day had been unfavorable; but a more glorious one than the last could not have been desired, save that the ground was rather damp, and, as was anticipated, more persons were present than had been for many an all-souls-day before. The cemetery, divided by numerous roads and paths, was the scene of many phases of human condition and character during the day. From morning till evening it was crowded with people, all in their fête day clothes. With the three periods of morning, noon and evening, changed the character of the visitors. Early in the day, the poorer people, those who, notwithstanding that it was a holiday, were not able to spend it as such, came, sought out the simple and unadorned graves of those they had buried, and, hanging their single garlands upon one of the wooden rails which marked the spot, turned away with a grief as profound perhaps as those who, at a later period, descended from their carriages, and amid the rustle of silks strewed fragrant flowers and costly garlands upon marble tombs, and again seated themselves and were whirled away to scenes where the dead are forgotten.

In the streets leading to *Pere la Chaise* on the second of November, exposed from every door near the cemetery, are garlands for sale, made of *l'Immortelle*, a flower which is dried and retains for a long time its color. They are either perfectly plain, or have on them, "To a dear brother," "To a

kind mother" &c. &c. They are laid upon the tombs, around or in them, or placed over them on a rod protected by a cover: some were withered and dead, others were fading, others had been removed and were trampled under foot, whilst others again were fresh. One might have been disposed to speculate on the different stages of grief suggested by the fresh and dead garlands, but that, on returning from the gate of the cemetery, he remarked hundreds of those whom he had seen bring in and deposit the flowers, standing and enjoying the the feats of a juggler. While I was in the cemetery a burial took place, and as the funeral car rolled along its solemn way no head which it passed remained covered. Hundreds stood by to see the coffin lowered, and as it was covered out of sight the springs of grief in many a heart were made to flow afresh. When a funeral takes place here, as it moves down the street, every one removes his hat and remains uncovered until it has passed. There are many trees in the cemetery; I was there in the season of "the yellow leaf;" and as they fell and were trodden upon, one felt that before the fall of next year's leaves hundreds of those human beings who walked then carelessly among them, would themselves be entombed and as utterly forgotten. The man gives a *sous* for a garland by which to testify his annual remembrance of his brother, deposits it upon the grave, turns away, saunters through the cemetery, goes out, is attracted by the loud spoken advertisement of a juggler, pays him a *sous*, and moves on, to return another year, renew the garland and patronize a mountebank! There are upwards of 15,000 tombs in this cemetery, upon which it has been estimated that nearly twenty millions of dollars have been spent. They are very slight and will not last long, a circumstance to be regretted. There are crosses and virgins in great numbers of these, and very many contained burning wax tapers. The monuments represent pyramids, sepulchral chapels, temples, obelisks, columns, urns, mausoleums, etc.—The tomb of Laplace is of white marble, surmounted by an obelisk, which is capped by an urn, ornamented with palm branches and a star encircled by inscriptions alluding to his

works. A cenotaph, crowned by a fox, in black marble, and ornamented by two bas-reliefs in bronze, one representing the fable of the *wolf and the stork*, and the other the *wolf and the lamb*, you will recognize as the the tomb of La Fontaine.—One other and I have done: the purport of it is this—"To the memory of —." This monument was erected by his "disconsolate widow." She informs her friends and the public generally, that "she still continues the business at the former stand, rue —, No. —." Of course, all who read this inscription are curious to see its careful author, and many thereby, no doubt, are induced to "open an account" with the "disconsolate" creature.

Paris, December 30th, 1846.

ART. VI.—*Cases of Dropsy.* By DR. THOMAS C. OSBORNE. of Erie, Ala.

Case 1. This was a case of ascites in an unmarried female, aged 18 years, the result of acute peritonitis.

In February 1842 she was seized, after exposure to cold, in her menses, with a chilliness and pain in the head, back and abdomen. I found her laboring under intense pain about the umbilicus, which was increased by pressure, her pulse 100, quick and tense, with hurried respiration and anxious countenance. The menstrual flux continued, bowels constipated. Treatment: v. s. to faintness; cal. and jal., to be followed by ol. ric. in six hours; fomentations to the abdomen.

18th. Patient better; bowels moved; respiration attended with less pain.—Castor oil and pepper poultices.

19th. Patient worse; pulse 100 and tense; she lies on her back with her knees drawn up; pressure of the bed clothes painful; menses suppressed; bowels costive.—V. s. repeated to syncope; blister over the abdomen; cal. and jal., to be followed in six hours by ol. ric. and spts. terebinth.

21st. Better in every respect. Pulse 80, soft and full, skin moist, bowels soluble, and the evacuations bilious.—Laxatives and diet.

March 9th. The blistered surface having healed, the abdomen was observed to be swelling and the respiration impeded; pulse 90, small and hard; bowels open; urine scanty, natural in color, deposited a branny sediment, not coagulated by heat.—V. s. again, and blister reapplied; cal. and squills, 2 gr. each, three times daily; bitart. potas. and jalap every morning.

10th. The blister drew, and was attended by an extraordinary effusion of serum; the bed clothing and mattress were saturated, and the liquid had run down upon the floor.—Treatment continued.

April 14th. Patient much worse. Blister applied again, but without any good result. All expedients were tried, but still the ascites continued to progress until July, when tapping was deemed indispensable. Three gallons of serum were evacuated; the girl felt much relieved; the kidneys, having been long torpid, now began to act, and lively hopes were for a few days felt, that the patient was about to recover. But these flattering appearances soon failed, and, by the last of August, the dropsical effusion was as great as ever. I determined, as a mere experiment, to employ iodine in the case, and on the first of September gave her 10 drops of the saturated tincture, to be repeated thrice daily. Six days afterwards the menstrual flux returned; the abdomen diminished steadily in size, her strength improved, and in three months her health was restored.

Case 2. This was a case of ascites, resulting from the improper use of a stimulating emmenagogue—the volatile tincture of guaiacum. The subject was a negro woman, in whom suppression had existed for two or three years. She was cured of the dropsy in a short time by cal., squills, and the bandage.

Case 3. The third case was one of ascites and anasarca in a child, following diarrhœa. A cure was effected by cal., the bandage, and tepid bathing.

February 9th, 1847.

BIBLIOGRAPHICAL NOTICES.

Art. VII.—*Analyses of Grains and Vegetables, distinguishing the Nitrogenous from the Non-nitrogenous Ingredients, for the Purpose of estimating their separate Values for Nutrition. Also, on Ammonia found in Glaciers; and on the Action and Ingredients of Manures.* By E. N. Horsford, A. M. Boston, James Munroe and Company, 1846: pp. 68.

One of the most important facts in vegetable physiology is the observation made by Bonnet, that plants growing in rain or river water give out bubbles of air. The same observer remarked, that when plants grew in water which had been boiled, their growth was not attended with the evolution of gas. Priestley took up the subject, and, in that spirit of research for which he was distinguished above all his cotemporaries, applied to the gas such tests as showed it to be oxygen. Another valuable observation added by Ingenhousz was, that it was only when growing in the sun that plants had the power to extricate this gas. It was reserved for a later philosopher to show whence the oxygen was derived, and this was done by Sennebier, who proved that it came from carbonic acid. Finally, Percival and Saussure demonstrated that plants grew more rapidly in an atmosphere containing an excess of this acid. Boussingault has recently established that one part of carbonic acid in eleven of atmospheric air is highly favorable to the growth of vegetables so long as they are under the influence of the solar rays, but that in the shade the smallest quantity of the gas is injurious to them. Their growth was found to be hastened by fanning them with an air loaded with the acid, and the air which had been subjected to their action proved to be strained of the gas. Hence it results that carbonic acid is the food of plants.

It is only within a few years that the extent and importancce of nitrogen in plants has come to be recognized. Not very long ago chemists regarded this as constituting the great distinction between vegetable and animal matters, that the

former were nearly destitute of nitrogen, whilst in the latter it was an abundant element. Gay-Lassac was the first to show that nitrogen is an almost invariable constituent in the seeds of plants, and since this important discovery the conception of animal nutrition has been assuming a character more and more definite, until what was regarded as a most mysterious process has come to appear a very simple one. Modern chemical research has disclosed the interesting fact, that vegetable substances may be arranged in two classes, the nitrogenized and the non-nitrogenized. Animals die of inanition if confined to a diet destitute of nitrogen, and laborers supplied only with food containing none of this principle become incapable of executing their tasks. This is all easily explained, and depends upon the identity in chemical composition between vegetable fibrin, albumen and caseine, and the corresponding bodies found in the animal kingdom. The aliment must contain matters suited to replace the animal tissues consumed. This being understood, the chemist, when he has ascertained the relative proportion of the nitrogenous compounds in various kinds of food, is prepared to say what is their relative value. The more nitrogen, the more nourishment there is in them.

"The nitrogenous bodies, from their solution in blood, form the tissues—the actual organism. The bodies wanting nitrogen contribute, by their more or less perfect combustion, to the warmth of the animal body; and the salts of the alkalies and alkaline earths, serve in building up the osseous framework, beside constituting an essential part of every organ of the animal system.

Their values for the latter purpose are in proportion to the phosphates the ashes contain.

Their values for the second purpose above mentioned, may be considered, in general, as in the inverted relation of their values for the the first;—since the larger the proportion of nitrogenous bodies, the less must be the proportion of bodies wanting nitrogen.

Their values for the first purpose, that of ministering to the support and growth of organic tissues, have been the specific object of the hereafter enumerated determinations."

The object of the investigation the results of which are de-

tailed in these Essays, was to determine the relative values of different kinds of vegetable food, and was undertaken at the suggestion, as the author states, and under the direction of Professor Von Liebig, in the Giessen Laboratory. It has been pursued to a highly successful and creditable termination. The author shows himself capable of the highest achievments in analytical chemistry, and we look upon his present effort as but an earnest of the contributions which may be expected from him to this most interesting department of science. It is only his results which would be interesting to most readers, and these are presented in the following table, the last column of which exhibits the conclusions of Boussingault formed upon experiments with a view to practical equivalents. It may, perhaps, be well enough to explain, that the smallest numbers express the highest values. Thus, 100 pounds of wheat are equivalent to 1000 pounds of turnips, and 55.5 pounds of linsen to 100 pounds of wheat.

Tabular View of Nutriment Values expressed in equivalents, Wheat at 100.

Name.	Theory.		Experiment
	Dried at 100° C.	In fresh condition.	In fresh condition.
Wheat	100.	100.	94.
Rye	98.8	97.6	97.6
Indian Corn	115.	113.	108.
Triticum Monococcum	128.	124.6	——
Barley	104.	102.	101.5
Panicled Oats	92.	90.	112.7
The same, without chaff	78.	76.3	——
Kamschatka Oats	110.	106.	112.7
Common Rice	220.	225.	——
Tartarian Buckwheat	170.	166.	122.7
Table Peas	59.9	57.6	90.7
Field Peas	57.7	60.	90.7
Table Beans	59.2	57.	90.7
Large White Beans	58.8	57.	94.7
Linsen	55.5	53.	——
White Potatoes	169.8	565.6	429.
Blue Potatoes	220.8	596.3	429.
Carrots	158.6	959.4	545.4
Red Beets	109.	501.5	——
Yellow French Beet	146.	689.5	643.
Ruta Baga	182.7	919.4	589.7
White Turnips	133.8	919.4	1000.
Onions	224.6	210.6	——

The author, as the result of his investigations, arrives at the following conclusions:

"That the same species of cereal grain, grown on different soils, may yield unequal percentages of nitrogen.

That wheat and rye flours, to the eye and sense of feeling undistinguishable from each other, may differ by from one to three tenths of their whole quantity of nitrogen.

That one seventh of fresh, ripe, cereal grains, is moisture, and may be expelled at a temperature of 100° C.

That root crops, grown on different soils, may yield unequal percentages of nitrogen.

That the percentage of moisture in edible roots, is a constant quantity for each variety.

That beets, carrots and turnips have a larger percentage of moisture than potatoes.

That more aliment is contained in a given weight of peas, beans or lentils, than in an equal weight of any other kind of food above analyzed.

That in several of the grains and roots analyzed, there are organic bodies beside those identical in composition with gluten and starch.

That the ashes of carrots. beets, turnips and potatoes, as Prof. v. Liebig has already remarked, contain carbonates.

That the ashes of all the varieties of vegetable food above analyzed contain iron.

Finally, that the difference between the theoretical equivalents of vegetable food, as estimated from the percentage of nitrogen, and those ascertained by the experiments of stock growers, and the differences between the results of different stock growers, may be attributed in part to the unequal percentages of nitrogen in the grains and roots of the same species or variety, when grown on different soils,—but chiefly to the imperfection of determining the modes of the practical equivalents. These have been imperfect,

1st. Because the prominent test employed, has been increase or diminution in weight, of the animal fed. Increase in weight may arise from secretion of fat derived from the sugar and starch of plants. Diminution in weight may follow unusual activity, increasing the consumption of fat already present.

2d. Because theoretical equivalents have been employed in conditions unequally suited to digestion. The same article of food, coarse or fine, fresh or prepared for easy digestion, yields unequal measures of nutrition.

3d. Because the experiments, in but few instances, have been made with substances where moisture and nitrogen had been previously ascertained."

Mr. Horsford analysed the water obtained from a glacier of the Alps, and ascertained that it contained two parts of ammonia in the million; from which it is evident that ammonia is not confined to the lower strata of the air. Mr. H. also infers,

"That a shower of rain, after a long interval of fair weather, should produce, through the ammonia descending with it, immediate effect in vegetation; and

That a soil, containing the necessary inorganic matters, and whose physical properties enable it to retain a certain measure of moisture, should be fruitful, inasmuch as it retains the ammonia with the moisture; and

That a soil containing so large a proportion of clay that it does not permit water to filter through, should be less fruitful, since the subsequent falls of rain, after the soil has become filled, will flow away, and with them the ammonia they have brought down."

Ammonia exists in the soil in very surprising quantities, as appears from the annexed table, for which we are indebted to the work before us:

Name of Soil Examined.	Ammonia in a stratum one acre in area, and one foot deep, in pounds, avoir.
Clay soil, before manuring	9751
Clay soil	9463
Surface soil, from Hohenheim	8985
Subsoil, from the same field	6015
Clay soil, before manuring	8617
Clay soil " "	8502
Soil for Barley	8373
Clay soil, before manuring	8039
Loam	7939
Loam	7820
Illinois prairie soil	6069

Upon which the author remarks,

"Now, what farmer ever carted from his manure yards 8000 pounds of ammonia to an acre of land? One may almost inquire, what farmer ever carted the tenth, or even the twenti-

eth part of this amount? It is obvious that the ammonia spread on fields in the ordinary distribution of barn yard products, is of no moment. The quantity which usually falls of rain, greatly exceeding in the course of a season, any conceivable supply of human instrumentality. These results put the question of the source of ammonia or of nitrogen out of all doubt."

If, then, ammonia is supplied in sufficient quantity from the atmosphere, to what are we to attribute the efficacy of stable manures? This author thinks, with Liebig, that the good effects are due to the alkalies and earths which they afford; and he concludes that the principle of rational improvement of soils is,

"1st. *A proper physical constitution* for the retention of moisture, escape of surplus rains, expansion of roots, etc. This will be derived from the plow, harrow, spade and hoe, and admixtures of sand in some soils, clay in others, loam in others, and organic refuse in most.

2d. A supply of the inorganic ingredients which the ashes of the plant to be cultivated contains, in such a state that they may be taken readily into the vegetable system, and yet not so soluble as to be washed away by rains."

This view of the subject certainly has simplicity, if nothing else, to recommend it. The air furnishes ammonia and carbonic acid, the great articles of vegetable nutrition; the farmer must see that the soil is fitted to receive them, and also that it contains the requisite amount of the inorganic matters by which plants are developed, and all is done that is required for plentiful crops. The rains effect the rest.

We commend heartily this elaborate tract to the perusal of all who feel an interest in the culture of the soil, of which our conception is that of the Roman orator: "Omnium rerum quibus aliquid exquiritur, nihil est agricultura melius, nihil uberius, nihil dulcius, nihil homine libero dignius."

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

A Case of Apoplectic Chill, Acute Rheumatism, and Paralysis combined. By J. E. Stewart, M. D., of Jackson, Tennessee.—W. W. Williams, ætat. 52 years; laborer, of robust habit and general good health, and had always been temperate, was attacked, July 25th, while in the woods chopping, with what both he and his son, who was with him, considered to be a chill. They immediately set out for home, and after resting several times reached the house. Immediately after his arrival he fell into a state of insensibility, and so remained for several hours; during which time I was sent for. On my arrival I found him in the following state, viz: rather comatose; the face flushed, and apparently swollen; breathing labored, but not stertorous; frequent sighing; when spoken to answers slowly, but correctly. When I took hold of his arm to examine his pulse, he shrunk from my touch and complained bitterly. I now ascertained that he had lost all command over the voluntary muscles of the right arm, and that the shoulder and elbow joints were greatly swollen, red, and exceedingly painful. So acute was the pain in the deltoid and other muscles of the arm, that he could not bear the weight and friction of his shirt sleeve.

℞. Venesection ℥xx., sul. mag. flo. sul. *āā* ʒ½., and on the following morning one of the following pills every two hours, quinine, gr.iv., potas. hyd., gr.ss.

July 27th. Has had no further paroxysm, pulse 90, rather hard; venesec. ℥xv., other treatment continued, to which was added a stimulating liniment.

28th. Bowels patulous; pulse 70, compressible; appetite good. Discontinue the purgatives and continue the other treatment.

29th. Symptoms same; has slept well; continue treatment.

30th. There being but little, if any amendment, in either the acute sensibility or motion of the arm, I determined to add to the above treatment the following: ℞, strychninæ gr.i., aquæ puræ ℥i. A teaspoonful to be taken morning, noon, and night.

31st. Symptoms in *statu quo;* treatment continued.

August 1st. Slightly better, can move his fingers; arm not quite so painful to the touch; bowels rather constipated; ordered two of the following pills at bed-time: ℞. ext. col. comp. ʒi., ant. tart. gr.iv., ol. carui. m. iii.; M. massa, divid. in pil. xx. Other treatment continued.

2d. Better; bowels have been operated on four or five times; pulse 75, soft. The above treatment was continued up to the latter part of August, by which time he had so far recovered as to be able to return to his ordinary occupation, to wit: that of farming.

Sept. 25th, 1846. Had another attack in all respects similar to the first, except that it affected the left arm, so far as loss of motion and pain, or rather soreness, was concerned, as the first paroxysm had done the right. There was no swelling of the left arm. Former treatment resumed.

26th. Bowels loose; pulse soft and compressible; appetite good.

27th. Symptoms the same; cannot move the left arm.

28th. Somewhat better. Continue treatment.

29th. Still mending; continue treatment.

30th. Convalescent.

Oct. 26th. Had another attack similar to the one already described, but affecting the right arm as at first. I now substituted spts. turp. m. 3 night and morning, for the hyd. pot.

27th. Better; treatment continued.

28th. Better; treatment continued.

Nov. 2d. Convalescent.

Remarks.—I believe you will agree with me that the above is a most singular and very interesting case. It was not genuine apoplexy, for the paroxysm was ushered in by a chill, and there was no stertor. It was not genuine paralysis attendant upon apoplexy; because, although motion was lost, yet, the sensibility was most acute, and besides, there were swelling and redness accompanying the first and third par-

oxysms, neither of which accompanies hemiplegia or general paralysis. Believing the disease to be a complication, as above headed, I combined my remedies accordingly, and with what success the above detail will show.—*Missouri Medical and Surgical Journal.*

Fatal Hemorhage from a Free Incision of the Gums.—Mr. Anderson relates the following case, in the *London Lancet:* I was called to visit a child six months old; it had been delicate from the first month of its life, but afterwards became stout and healthy, until the day before I saw it. I found it laboring under symptoms of pain in the abdomen, as frequent fits of crying, attended with a bending of the knees upon the abdominal parietes. There had been no sickness nor vomiting; the bowels were not constipated, nor was there diarrhœa; the evacuation of urine was but little diminished in quantity; there were no cerebral symptoms present; no disturbance of the respiration in the intervals free from crying; and no fever. I examined the gums, and fonnd those over the upper central incisors a little red and tumid. I lanced these upper gums somewhat freely; they bled, the child took the breast, and every trace of blood soon disappeared. At that time, I distinctly told the mother that the inferior gums did not require to be lanced. I sent it a grain of calomel, to be taken night and morning, and a carminative aperient mixture, to be taken every three or four hours. I believe I also directed moderate fomentation of the abdomen with hot water and flannel. My prognosis, delivered to the mother, was, "I see no danger in the case, give it the medicine, and I believe it will get well, but if it *should* become worse, send and tell us."

On Saturday morning, the 30th, I received a message that the child was considered to be worse. I went over, and found no remains of abdominal symptoms, and the reason that the child was considered worse was, that it had become unusually sleepy. I had not administered any sedative, and was uncertain whether this somnolence was the result of the relief of the abdominal pain, or the first manifestation of cerebral symptoms. Time would solve the former supposition, and fearing the latter, I directed that the head should be constantly covered with a cloth wrung out of cold water, and the medicine continued.

On Monday, June 1st, I went over before breakfast, and

found the child awake and lively, and had no hesitation in saying that it would soon be well.

Thursday, June 4th, a messenger was sent to say that the parents were uneasy about the child's body, (the abdomen), which had swelled, and they requested that it should be seen. I was from home, and Mr. Jones promised to go directly; he did not, however, see the child until after eleven at night, although he received the message before ten in the morning. I have been told that he paid little or no attention to the abdomen, but urged the necessity of lancing the lower gums, notwithstanding the mother's objection, and that she urged that I had so plainly told her they did not require it. He lanced them, and they bled profusely; he saw the hemorrhage, yet he went away, only remarking, "it will do the child good, and I will send it some stronger medicine."

Friday, June 5th. I went to the child in cosequence of receiving a note, which stated, that it had been bleeding all night and was dying. Upon entering the room, I perceived the contents of the stomach, which had just been ejected on to the floor, and in which was a coagulum of not less than two ounces of blood. I was told, that once previous to that, a similar quantity had been thrown up, and that much blood had passed in five or six evacuations from the bowels since the gums had been lanced the night before. The urine had been voided as usual; the abdomen was slightly tympanitic, and an umbilical hernia had protruded a little. This was the condition of the abdomen which had occasioned the uneasiness of the parens.

The pulse was perceptible at the wrist, and the extremities were warm as usual, but the entire surface of the body was much blanched. The respiration was so hurried that it was the first thing I observed; there was also a disposition to sleep; it could not be said that the child was faint. Upon examining the gum I found an incision extending about an inch or an inch and a quarter in length on the upper border of the lower jaw. It appeared to have been begun at about the site of the outer edge of the right inferior lateral incisor tooth; to have passed with the curve of the jaw *on* the alveolus for about a quarter of an inch, then to have descended on the posterior aspect of the site of the two central incisors, separating the gum from the alveolus and to have been brought over the site of the outer edge of the left lateral incisor, transversely across the alveolus. It was bleeding freely from its entire extent, the blood, issuing out of the incision into the mouth, was swallowed, and it had not the appearance of arterial blood. I endeavored to suppress the

hemorrhage by the application of styptics, as alum in powder and in solution; the nitrate of silver; the application of cold to the chin, &c., but principally by a firm compression of the gum against the bone, continued with little intermission for two hours, but with no effect. The impatience of restraint, the crying and strugling manifested by infants in general, were in this case much opposed to the success of the means employed. I had at one time, however, nearly succeeded, as it bled only from the two extreme points, but a fit of crying brought back the hemorrhage with renewed vigor.

Having passed several hours with this child unavailingly, I left it at near midnight and returned home, leaving word at Mr. Jones' house that *he* should go to see it. He was not at home, but went about three in the morning of Saturday. I did not see the child afterwards, but I heard on the Monday that it had died on the Sunday morning.

These, sir, are the details of the case, related to the utmost of my ability with an undeviating and an *unflinching* adherance to the truth, as free from exaggeration as from extenuation. I solicit an insertion of it in the pages of the Lancet as early as conveniently possible, and I abstain from comment because I believe it may be undertaken by persons who consider themselves more competent. No one, however, but myself could furnish a report of the case.—*Dental Journal.*

Treatment of Bursal Disease of the Knee-joint. By John Richard, Esq., of Leamington.—The plan of passing a bit of sewing-silk through the centre of the tumor I have practised for the last fifteen years. It has never failed in my hands, and I do not think that I have ever allowed the silk to remain longer than through the third day. When the inflammation has been very considerable, I have always enjoined rest, and applied a few leeches, followed up by a liq. plumbi lotion, previous to introducing the silk.—*Dub. Med. Press.*

Report on the Protective Powers of Vaccination.—In April, 1842, the undersigned were appointed by the College, a committee to investigate the protective powers of vaccination; the phenomena resulting when those who have been already vaccinated are again subjected to the disease, and the sub-

ject of re-vaccination generally. Various obstacles beyond their control, prevented their performing, at an earlier period, the task submitted to them, in a manner that would have proved at all commensurate with its importance ; they have, however, been enabled, at length, to bring their labors to a close, the result of which is here submitted.

The first object embraced in the resolution under which the committee was appointed, is one of acknowledged interest ; it refers to the protective powers of vaccination.

The most obvious and conclusive mode of determining the degree of protection imparted by vaccination against the influence of smallpox is to inoculate, with variolous matter, the persons who have been previously vaccinated.

At the close of 1801, the first successful efforts were made at vaccination in this city. In the early periods of this practice, until the year 1812, every means was employed which, at the time, was deemed best calculated to determine whether the process of vaccination would afford full protection against the smallpox. The first step generally taken, after having observed the genuine character of the vaccine pock, was to insert a portion of variolous matter, and to note its progress. Where due attention had been paid to the selection and insertion of this matter, a small red pimple appeared about the third day. On the fifth day, this was converted into a purulent crust, surrounded by inflammation, generally of no great extent, which, after this period, began to fade, and was rarely perceptible beyond the eighth day; it left no trace beyond the tenth. The full and distinctive character of the variolous pock was not observed on these occasions. The persons thus treated were not affected with fever, or any general disarrangement of the system, nor was any eruption observed on the skin. The persons having been submitted to this test, were next exposed to the smallpox in the most direct manner, often by placing them in the beds with those laboring under the disease, even in its most virulent form. A like immunity attended this experiment.

From repeated observations thus conducted, observing that no instance of smallpox had been communicated to those on whom the operation of vaccination had been duly performed, the profession ventured, in 1803, to announce the process as one affording equal protection with variolous inoculation.

The reasons for preferring the process of vaccination to that of variolous inoculation could not fail to be appreciated, and were strongly urged in the circulars issued for the public information.

Under the most favorable circumstances, and where every attention had been paid to insure success, many of those who had been inoculated for the smallpox were known to have fallen victims to the disease. The estimate most generally received, and founded on a large experience, was that one in four hundred of the inoculated fell victims to the process; some practitioners were stated to have been more fortunate, and to have lost not more than one in a thousand. On the other hand, of the thousands that had been vaccinated, not a death had been recorded which could be imputed to this process. The age of the individual, or the physical condition of the other members of the family, constituted no objection to the operation, as the cowpock could be communicated by the direct application of the virus only; while, in the instance of the smallpox, the effluvia emanating from the infected were known to impart the disease to the unprotected, and under circumstances when it was likely to prove fatal. In addition to the loss of life caused by the smallpox, even when the result of inoculation, the mutilations which were so often consequent, even when life was preserved, must have been familiar to every one acquainted with the disease, whether casually received or by inoculation.

Unfortunately, the reputation of the Jennerian process has been materially affected by the ignorance of the persons by whom the operation has been frequently undertaken, and by the want of attention on the part of some of the profession in visiting at the proper periods, and recording the phenomena observed. The period when the areola may be expected ought never to be neglected. The evidence that may be obtained from such circumstantial records will tend to dispel many of the idle reports so freely circulated to the disparagement of vaccination. By consulting such recorded documents, it has been clearly ascertained that the majority of the cases of smallpox ascribed to the failure of the protective process, were, in reality, owing to the imperfect manner in which the operation had been conducted. There is abundant evidence recorded in medical books, of persons having suffered from smallpox more than once; where such a peculiarity of constitution exists, it cannot be a matter of surprise that the disease should be occasionally observed after vaccination, even in cases where the genuine and perfect character of the vaccine process has been fully developed. A careful examination of these histories does not exhibit any appreciable difference in the proportional number of such cases, whether after smallpox or after vaccination.

By an act of the Legislature, passed in 1811, to communicate the infection of smallpox, by inoculation or otherwise, has been prohibited, under certain pecuniary penalties. For the four succeeding years, the disease is not recorded in the bills of mortality; and the mode of most conclusively testing the protective powers of vaccination necessarily ceased. And hence the profession have since then been deprived of a measure so intimately connected with the inquiries to which the attention of your committee has been directed.

Touching this very important question, it must be acknowledged that the documents at command are but few; nevertheless those that have been preserved afford the evidence that, after the lapse of three years, the vaccinated were found no longer susceptible of smallpox by inoculation. Among the persons thus treated, it has been ascertained that an infant, vaccinated within a month, resisted the variolous infection after an interval of the same number of years.

For the want of that full and comprehensive information which our more immediate resources fail to afford, it may prove acceptable if we here present the experiments made by that distinguished and accurate observer, Biot:

"In August, 1826, a number of boys, between the ages of twelve and sixteen years, were inoculated in four places with smallpox virus by Dr. Biot, one of the physicians to the Hospital St. Louis, at Paris. A part of these had been vaccinated, and a part had never been protected from the smallpox. In those who had been vaccinated, the insertion of the variolous virus had no other effect than to produce a slight inflammation for two or three days at the points where the matter was introduced. Those who had never been protected were affected differently, and contracted the variolous disease."

In this stage of the inquiry, it appears not irrelevant to notice the diminished mortality from smallpox, as observed in this city, since the introduction of vaccination. Whenever that disease has appeared, it has been viewed as among the severest scourges inflicted on mankind, and the most appalling apprehensions have been entertained by every community which it has visited. The sufferings of those affected with this malady have at all times awakened the most painful and anxious feelings in friends and connections, and called forth the assiduous and unremitting care of the attendants and those administering to the sick. In seasons of epidemic smallpox, the mortality has been observed to be great. In 1721–22, in the town of Boston, five thousand seven hundred and fifty-nine persons were affected with the disease, of whom eight hundred

and forty-four came to an untimely death, as publicly announced by the municipal authority of that city. This was a fearful mortality, particularly when we advert to the number of persons inhabiting Boston at that period. In the succeeding year, 1722, the census was taken, indicating a population of ten thousand five hundred and sixty-seven; if to this there be added the number who died of smallpox, eight hundred and forty-four, the sum will be eleven thousand four hundred and eleven, as the total population previous to the ravages of the smallpox having commenced. One-half of the inhabitants of the city were affected with the disease. Of those, between one-sixth and one-seventh came to an untimely death, and the city lost nearly one-thirteenth of its population.—*Zabdial Boylston on Smallpox*, *p.* 33.

Of those who survived the loathsome disease, many, from the hideous aspect and mutilations caused by the disease, continued through life the objects of commiseration, and too often of disgust.

Laws have been enacted, and rigid quarantines enforced, with the view of preventing the introduction and spreading of the smallpox. In small communities, having little intercourse with other portions of the world, these efforts have proved successful for a season; but the temporary immunity thus enjoyed has only rendered the subsequent ravages of the disease the more disastrous. The nations engaged in commerce soon experienced the futility of every attempt to insure exemption from the disease; for though the infected were secluded, and denied all intercourse with those deemed liable to the disease, the poison was found to be frequently conveyed by means of the clothing, and articles taken from the chamber of the sick. For successive ages, the pestilence was submitted to as an inevitable evil, and allowed to extend its baneful influence, annnally destroying large portions of the inhabitants of the earth, and in some instances depopulating whole districts.

The deaths from casual smallpox have varied, from circumstances not in our power to appreciate. The character of the seasons, the peculiarity of position, and the nature of the intercourse between the infected and those liable to take the disease, have had their influence in determining the malignity and mortality observable in different years.

The materials having relation to the medical statistics of Philadelphia, that can be gleaned from its early history, are extremely scanty and defective. It is only within the present century, and for the period of barely forty years, that any of the reports of the deaths have been publicly made. Prior to

this period, the records of the interments were confined to particular religious societies, necessarily difficult of access, and generally ill adapted to the present purpose. Though restricted to a narrow sphere, and not embracing the entire population comprehended within the city and districts, the registers kept at the dispensary afford a document which may constitute a proper basis to found the estimate of the advantages gained by vaccination. From the foundation of the institution to the close of 1801, including a period of sixteen years, when variolous inoculation was considered the only protective process available against casual smallpox, fifty-one persons are stated to have died of this disease, while the entire number of deaths, from various diseases, were seven hundred and one; establishing the proportion to be seventy-three in one thousand, which accords with the most favorable estimates made in Europe, and will hardly be excepted against by those least favorable to vaccination.

In 1807, by an act of the Legislature of the State, every death within the city and districts must be reported to the Board of Health, the certificate expressing the disease of which the person has died. From this source, clear and positive evidence may be obtained. From the annual reports during the period of four years, variolous inoculation still being permitted, it appears that the deaths from various diseases amounted to ten thousand seven hundred and forty-four, of which number, four hundred and twenty-nine were from smallpox. This affords the evidence of a considerable reduction in the proportional mortality from this disease, it being as forty in the thousand; during a period when vaccination had been practised, and institutions established for its dissemination.

Since 1811, variolous inoculation has been prohibited by law. During the four succeeding years, not a death from smallpox was recorded. In 1816, there was a great influx of foreigners, particularly from the British dominions in Europe; by these persons the disease was introduced into this city, and proved fatal in that year to no less than ninety-seven persons. It was accompanied with a papular eruption, resembling, in many particulars, mild variola—affecting some of those who were believed to have been protected from smallpox by having previously undergone what was supposed to be successful vaccination; of these, no death is recorded that has come to our knowledge. In 1820, '21, '22, the city again enjoyed an exemption from this malady. This assertion is founded on the fact of no deaths from smallpox, in these years,

having been reported to the Board of Health. In 1823, '24, the pestilence again afflicted our city, and the mortality from this source amounted to four hundred and eighty-four.* The fact that a large number of those who had been previously vaccinated with the greatest care, as well as many of those who had previously passed through smallpox by inoculation or otherwise, were attacked during this epidemic with a modified form of smallpox, created considerable alarm in the public mind, and directed anew the attention of the profession to an investigation of the amount of protection afforded by the vaccine disease. Upon the recurrence of smallpox in 1827, the Medical Society of Philadelphia appointed a committee to collect and report to the society all the facts within their reach, in relation to this important subject. The committee immediately addressed a circular to the physicians of the city and county, containing a series of interrogatories calculated to elicit information in relation to the protective powers of vaccination. The report of this committee, embracing the facts collected by them, was made to the society in 1828, and was of such a character as to renew the confidence of the profession in the protective powers of the vaccine infection.† Notwithstanding it was admitted that, in many instances, those who had been previously vaccinated would be liable to become affected, during the prevalence of variola, with a modified and usually mild form of smallpox, yet it was shown that the public are highly benefited by the practice of vaccination, which was, in every sense, to be preferred to inoculation; and hence, that humanity and sound policy imperiously demanded its continuance.

In succeeding years, with occasional mitigations, Philadelphia has suffered more or less from the disease. Taking the whole period since variolous inoculation was prohibited, the mortality from all sources has amounted to one hundred and forty-three thousand and seventeen; of this number, two thousand four hundred and ninety-seven are referred to smallpox; by which it will be perceived that the proportional mortality has been reduced to eighteen in the thousand.

We have thus endeavored to exhibit the degree of protection against smallpox afforded by the process of vaccination.

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*For an account of the epidemic of 1823, '24, we refer to a very able paper by Drs. Mitchell and Bell, in the North American Medical and Surgical Journal, vol. ii. p. 27 et seq.

† For a copy of this report, see North American Medical and Surgical Journal, vol. v. p. 400.

The evidence adduced does not depend on individual experience, but rests on the broad basis of the public records, into which no undue bias can have entered.

It must be conceded, that the anticipations of the warm friends for vaccination, that this process would lead to the extirpation of the small-pox, have not been accomplished. In making this concession, the question necessarily arises, whether the requisite precaution for preventing the intercourse of those affected with smallpox and those still susceptible of the disease have been duly enforced. The remarks of one who took a lively interest in arresting the progress of this loathsome malady, appear to be particularly pertinent, and to deserve the earnest consideration of every individual desirous of removing from the community this dreadful scourge. The words of Dr. Haygarth are: "The discovery of vaccine inoculation by Dr. Jenner is the most fortunate and beneficent improvement that medical science ever accomplished. It does not, however, preclude the necessity of investigating the nature of of the variolous poison, and of considering by what regulations its propagation may be prevented. In order to secure the unthinking multitude from this destructive pestilence, measures to prevent the casual *smallpox* should everywhere accompany vaccine inoculation; without such protecting care, by the wise and humane part of society, this mortal malady would for ages lurk unheard of and unsuspected, to the annual destruction of many thousands. No town, no village, not even a single solitary house, would enjoy perfect safety from danger."

The foregoing your committee beg leave to present as a solution of the first question submitted to them by the college.

The occurrence, year after year, of the smallpox in the city of Philadelphia, and in other communities, and the frequency with which those who had been vaccinated were attacked with a more or less severe, though generally modified form of the disease, induced many to suppose that the protective power of the vaccine infection was only temporary. The question as to the necessity of revaccination now arose; but whilst few practised it, many condemned it as useless, and calculated to weaken public confidence in the protective powers of vaccination. Others, however, maintained that as there was no certain criterion by which the protective powers of the primary infection could be established with absolute certainty, revaccination was necessary in all cases, in order to test the efficacy of the first operation. This opinion very naturally obtained importance, from the fact that few cases

of modified smallpox were known to have occurred after a second vaccination, provided the insertion of the vaccine virus produced an action sufficient to prove that it had been taken up by the absorbents; also, from the disease being observed, in numerous instances, to be arrested in families and in neighborhoods where those already reputed to be vaccinated were again subjected to the operation.

When vaccination has been repeated in those who have been previously subjected to the disease, it is found to produce a local affection, marked by very different degrees of intensity. In some, slight inflammation occurs on the second or third day, and then fades away. In others, various degrees of inflammation manifest themselves, followed by a pock or pustule, terminating in a brown or yellow crust; while, very rarely, a distinct, regular areola is produced, or the other phenomena of the genuine disease, as will fully appear from the table here annexed.

The subject of repeated vaccination has engaged a large field of inquiry in different parts of Europe; a very full abstract of the results of which will be found in the work of Dr. Condie on the Diseases of Children, page 458.

The second question, therefore, submitted to your committee, was to determine the phenomena resulting when those who have been already vaccinated are again subjected to the disease, and the necessity and policy of revaccination. It is to the first portion of this question that the committee have been obliged, necessarily, to confine their attention. It must be very evident, that to test fully the necessity or propriety of revaccination, would either require that after large communities shall have been a second time subjected to vaccination, time be allowed in order that they may be repeatedly subjected to the influence of variolous contagion during the epidemical visitations of smallpox; or that the direct test be resorted to, of inoculating with smallpox those who have been successfully vaccinated, at different periods subsequent to the primary operation, as well as after a secondary operation, and carefully noting the comparative immunity from the impression of the variolous poison exhibited by each class of patients.

In order to obtain as wide a field of observation as was in the power of your committee, they applied to the co trollers of the public schools, soon after their appointment, for the privilege of vaccinating the scholars whose parents would consent to the operation being performed, whether they had been previously vaccinated or not, in order to ascertain the

degree of impression that would be made in each case by a repetition of the operation, and with a view of watching hereafter the effect or influence it may have in preventing the occurrence of smallpox in the subject of our experiments, should an epidemic of that disease again appear among us. But the controllers did not at that time consent to our request, and the investigation of the subject had to be postponed. In the early part of the present year, smallpox again made its appearance, and excited considerable uneasiness in the minds of the public. Your committee, entertaining the opinion that the period was propitious for a renewal of their application to the controllers, accordingly did so, and their consent was promptly given. Circulars were then sent to the parents of the children attending several of the schools, requesting their permission, which was in most cases readily granted, and every facility was offered to carry into effect the object your committee had in view.

The operation was performed in nine hundred and thirty-one cases; six hundred and thirty-five of whom took on various grades of action. Many of these had been vaccinated three, four and five times before, and stood in relation to smallpox, chickenpox, and varioloid, as stated in the following account:

Nine hundred and thirty-five persons, reputed to have been protected by previous vaccination, having distinct cicatrices on the arm, or by having passed through the smallpox, were subjected to the action of the vaccine virus.

50 did not appear on the days appointed for examination.
294 exhibited no signs of inflammation from the process.
52 of these were reputed to have been previously vaccinated twice.
6 " " " " three times.
1 " " " " four times.
14 " " to have had the smallpox.
36 " " " varioloid.
72 " " " chickenpox.
76 had various degrees of inflammation on the fourth day, which had faded before the eighth day.
15 of these were reported to have been previously vaccinated twice.
2 " " to have had the smallpox.
5 " " " varioloid,
26 " " " chickenpox.
181 had inflammation, more or less severe, accompanied by a yellow or purulent crust, on the eighth day.
30 of these were reported to have been previously vaccinated twice.
11 " " " " three times.
2 " " " " four times.
1 " " " " seven times.
9 " " to have had the smallpox.
7 " " " varioloid.
50 " " " chickenpox.

95 had very diffusive inflammation, the pustule still moist the 8th day.
10 of these were reported to have been previously vaccinated twice.
1 " " " " three times.
1 " " " " four times.
2 " " to have had the smallpox.
4 " " " varioloid.
23 " " " chickenpox.
179 exhibited more or less inflammation and a brown crust the 8th day.
10 of these were reported to have been previously vaccinated twice.
4 " " " " three times.
1 " " " " seven times.
8 " " to have had the smallpox.
7 " " " varioloid,
49 " " " chickenpox.
57 had a pock, with various degrees of inflammation; diffused and irregular in its margin on the 8th day.
2 of these were reported to have had the smallpox.
15 " " " chickenpox.
3 (viz. a boy and two girls) exhibited a well defined pock, and the areola characteristic of the perfect vaccine impression, as observed on the eighth day. They are stated not to have been affected with the smallpox, varioloid, or chickenpox.

From the foregoing observations, as well as from those derived from previous practice, your committee are justified in the conclusion, 1st, that vaccination is the best preservative of human life now known against the contagion of smallpox and although it has not answered the full expectations of its more sanguine advocates, by protecting the system in all instances against at least a modified form of variola, which is the case with the smallpox itself, nevertheless life is very generally protected by it, and humanity and sound practice imperiously call for its continuance.

2dly. Patients, who have been once fully subjected to the influence of the vaccine infection, lose in a great degree their susceptibility to a second infection; the susceptibility diminishing still more at every subsequent vaccination.

3dly. That portion of the community who have been once successfully vaccinated, are in the great majority of cases fully protected from smallpox or varioloid.

4thly. A second vaccination does not insure the system in every instance against an attack of varioloid; neither does second vaccination prevent an impression being made on the system by a subsequent operation.

5thly. Upon the recurrence of smallpox in a family or neighborhood, it is all-important that all individuals, in regard to whom there is any doubt or uncertainty as to the fact of their having been successfully vaccinated, should be subjected immediately to the operation, this being the most certain

means of preventing the spread of the variolous contagion. Your committee have not heard of a single instance of varioloid having occurred in any of the children of the public schools vaccinated by them, notwithstanding the epidemic was prevailing at the time and subsequently.

D. Francis Condie,
Thomas T. Hewson, } *Committee.*
J. Wilson Moore,

Accompanying this report, there was presented a table containing the name and age of each individual revaccinated by the committee, the number of times each had been previously vaccinated; noting those who had been affected with smallpox, varioloid, or chickenpox; and the appearance of the arm on the fourth and eighth and twelfth days, with remarks on the result of each case.—*Summary of the Transactions of the College of Physicians of Philadelphia.*

On the present state of Homœopathy in Germany. By Dr. A. Mühry, of Hanover.—Homœopathy has undoubtedly taught us, that however high an estimate medical men may have before formed of the healing powers of Nature, these must be rated much higher still. This fact may indeed render us more modest, but need not depress us into spiritless unbelievers. If, on the one hand, we ought to feel ashamed that the curative powers of Nature, aided—by nothing at all—should sometimes achieve as much as we are able to do ourselves, the history of homœopathy has, on the other hand, shown this system to be inadequate to the wants of human society; and has brought into stronger light, not merely the nullities of medicine, but also as a secondary result, its positive utility.

I think I am right in affirming that the history of homœopathy can be better traced in Germany, where the system originated (fifty years ago), and where its development took place, than in England, where it has not been practised more than from ten to fifteen years. It appears to me, likewise, that the changes wrought in homœopathy have not been sufficiently taken into account in your essay; and hence it may here be of some use to point out some of the principal epochs of the system.

Samuel Hahnemann published his 'Organon' of Medicine in the year 1810, but had begun to make his system known before that time. I think with you that he was a sincere believer in the truth of his doctrine. It is but just, however, to

remark, that, at least once previously, he had deceived the world, by selling at a high price, under the name of *pnoeum*, a nostrum which consisted of nothing but *borax*. This is a fact undenied even by his adherents. He had before this published a pharmacological dictionary, and his system was altogether the offspring rather of Pharmacy than of Medicine, properly so called.

Among others, the following retractions and retrogressions have been made in the original doctrines of homœopathy, by various adherents. At first it was deemed requisite to administer medicines only once a week or once a fortnight. At present scarcely a single homœopathist adheres to this; but, on the contrary, now frequently orders them several times daily. A contradiction was also recognized in the assumption of a force-creating power of remedies by attenuation—a greater efficacy in less attenuated remedies. At the present day there is often administered a drop of unattenuated and unpotentialized tincture (termed elementary, or mother tincture.) Originally, the abstraction of blood, emetics, aperients, mineral waters and baths. were all proscribed: now they are often acknowledged as useful. Hahnemann's later doctrines, as promulgated in his 'Chronic Diseases,' met with few adherents: he had become inconsistent, and became more so still when he recommended camphor in very large, unattenuated doses against cholera. His successors became more and more divided, modifying the system in various ways, until its original meaning was almost entirely lost. This became apparent at a congress of homœopathic physicians, which took place at Magdeburg, either in 1836 or 1838. Their confession of faith attests how much reform and reaction the doctrine of numerous homœopathists had suffered. A fraction of the school has even laid aside the name of homœopathy, substituting for it that of "Specific Medicine." This sect is numerous in Germany, in the Grand Duchy of Baden. These still hold fast to the principle, "similia similibus." as explanatory of the curative process, but they no longer give the remedies after the original method. They busy themselves in experimenting with medicines upon healthy persons, but in large doses, and from this they look forward to grand results, which are, however, not perceptible as yet. They likewise attend to the physiological relations of the diseased body, and they have among their body some most able and respectable men. For at least ten years past, this "Specific Medicine" has supported a journal.

We may regard the homœopathists as sincere; but it is true

that their number has augmented less by adoption of the original doctrine than of its modifications. They bear the original name wrongly, being no longer true homœopathists. The majority have even resumed a great portion of the allopathic medicines.

I do not hesitate to say that, although men of worth are to be found among them, there prevails, generally speaking, both within and without the profession, a low opinion of the standard of their intelligence. In Germany, no man of undoubted eminence has ever become a convert to the system. Only once has an instance like that of Professor Henderson occurred: Dr. Kopp, of Hanau, unexpectedly published a volume of "Practical Observations," descriptive of a series of homœopathic cases and cures of his own witnessing. He thus stamped himself a homœopathist. A few years afterward, another volume of the "Observations" appeared, communicating a further series of cases and cures—but of an allopathic nature. The author thus declared himself reconverted, and he has remained so ever since.

With us in Germany there are in almost every largish town one or more homœopathists, who are perhaps consulted in chronic cases, after various methods had been previously tried, and where it is thought that homœopathy, at any rate can do no *positive* harm. True it is, that cures are sometimes thus effected, and these create a sensation; while the cures accomplished by ordinary medicine pass unnoticed. A large proportion of homœopathists have recently adopted the hydropathic method of treatment. I am not cognizant of any town where homœopathy is exclusively practised.

If homœopathy has taught us that our curative control over the course of disease is far below what we rated it at, it has, *à fortiori*, though unintentionally, taught us that our "apparatus medicaminum" possesses less merit than we imagined, and that it need no longer continue as gross and rude as the instrument of an "armentarium chirurgicum" of old. It has, however, at the same time enabled us to mark with greater distinctness those diseases in which our remedies really effect the cure. Such are, for example, intermittent fevers, scabies, syphilis. These it was that first showed the insufficiency of homœopathy; and you will find that in the statistic bulletin of Dr. Fleischmann these diseases are omitted.

One thing certain is, that through means of homœopathy, medicine has undergone, is undergoing, and—as in your treatise you predict—will, in the future, yet further undergo a rigorous scrutiny. It appears to me, however, that rational,

scientific medicine has, in some degree, already passed this ordeal; and if it can never claim the exactness of chemistry and mechanics, it may yet hope, in point of accuracy, to reach the standard attained by modern physiology.—*British and Foreign Medical Review.*

June 22, 1846.

Phrenology.—It is well known that, among other arguments by which Gall upheld his view of the function of the cerebellum, he maintained that the size of this organ is less in castrated animals than in those possessing their sexual organs entire. He does not, however, appear to have made any very exact observations in support of this position, which he principally rested on a comparison of crania. Subsequent observers have not confirmed the statement. Even M. Vimont admits that the result of his experiments was doubtful. Desirous to put the question to the test, M. Leuret caused his former collaborateur, M. Lassaigne, (of whose qualifications as a scientific observer Mr. Noble expresses his ignorance,) to weigh the cerebra and cerebella of a sufficient number of stallions, mares, and geldings, and compare the results. A table of these weights, with that of the medulla oblongata, is given by M. Leuret, for every one of ten stallions, twelve mares, and twenty-one geldings; and the result is that the cerebellum of the gelding is, on the average, *both absotutely and relatively larger* than that either of the stallion or the mare. The manner in which these results are treated by Mr. Noble is, we are constrained to say, rather too characteristic of the general mode in which phrenologists treat evidence that does not suit their purpose. In the first place, not having seen the entire tables, but only the summary of them given in Dr. Carpenter's "Human Physiology," he makes objections which a reference to the tables would prove to be unfounded. His especial ground of refusal to admit the validity of these results, is the smallness of the number of observations, and the consequent uncertainty of the averages; but if he will refer to the tables themselves, he will see that even the *extremes* are as remarkable for the evidence they afford as are the *means*. Thus, the weight of the cerebellum of the stallion is to that of the cerebrum in the stallion, as from 1 : 7·46 in the *lowest*, to 1 : 6·25 in the *highest*, the *average* being 1 : 7·07. In the mare, the proportional weight of the cerebellum is greater, not from the larger absolute size of that organ, (as Mr. Noble would make out M. Leuret to assert, contrary to what he states is the in-

variable fact), but from the smaller size* of the cerebrum; it varies from 1 : 6·93 in the *lowest*, to 1 : 6·08 in the *highest*, the *average* being 1 : 6·59. In the gelding, the proportion varies from 1 : 6·44 in the *lowest*, (excluding one case in which the cerebrum was so enormously developed as to reduce the proportional weight of the cerebellum to 1 : 7·44, although the latter organ surpassed, in *absolute* weight, any other which is here recorded,) to 1 : 5·16 in the *highest*, the *average* being 1 : 5·97. We cannot but think that any unprejudiced person, on comparing these results, must admit that they are sufficient, at any rate, to countervail the vague statements of Gall, even though they may not be sufficiently numerous to establish an exact average of the relation. Phrenologists have too often shown a great horror of *precise* comparisons; but we submit that here is a case in which there can be no serious mistake, the cerebellum and cerebrum being so completely isolated by Nature that no accident or partiality on the part of the experimenter can affect the results in any considerable degree. We are suprised that a man of Mr. Noble's general candor and benevolence of disposition should have descended to the unworthy but easy method of invalidating the results of experiments which do not accord with his hypothesis, by imputing intentional deceit to M. Leuret, as being a known opponent of phrenology. It will be quite time, we submit, to do this, when Mr. Noble, or any other phrenologist, shall have brought before the world a more extensive series of observations made on the same plan, by which M. Leuret's results shall be overthrown. And even then it will be, of course, for the world to judge, from their relative estimate of the two parties, whether the system-makers or the objectors are most likely to be in error. The results of M. Leuret's inquiries have now been before the public for some years; but as we have not heard that they have been thus invalidated, we cannot but admit them as affording important negative evidence with regard to the phrenological view of the functions of the cerebellum.

We have left ourselves no space to touch upon the bearings of pathological observation, with regard to the two views of the functions of the cerebellum. This, however, we the less regret, since the very small number of well-observed cases at present recorded does not afford any decided evidence either

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* We have discovered an error of calculation in M. Leuret's table, in regard to the weight of the cerebrum in Mare No. 7. The number (deduced from the weight of the entire encephalon) ought to be 436, instead of 336, and the proportion 6·60, instead of 5·09.

way; it being quite possible, however, to put this evidence in a form that is very favorable to either side, by neglecting all that bears the other way. This Mr. Noble has done in favor of the phrenological view; recording a small number of coincidences between injuries and diseases of the cerebellum, and disorder of the sexual organs, (among others, quoting a case in which the injury was a *flesh wound* in the neck, and in which there was no proof whatever of the cerebellum being affected,) but passing over with very imperfect notice the cases in which there was no such coincidence, or in which the phenomena tended the other way. He gives in detail, however, two cases recorded by Dr. Cowan, which seem to have had some influence with that gentleman—a professed phrenologist, be it observed, but at the same time a man of too philosophical a mind to be a blind partisan of the system, —in leading him to view with more favor the doctrines of Flourens. This forfeiture of allegiance to Gall, on the part of one of his followers, very amusingly excites Mr. Noble's surprise; his conviction of the truth of the system being such, that he cannot understand how any one who has once embraced it can relinquish one tittle of its dogmata. And he devotes some space to the analysis of the details of Dr. Cowan's cases, with the view of bringing them into harmony with Gall's doctrine; in this, however, he seems to us to display more ingenuity than philosophy.

On the whole, then, we are disposed to infer, from the remarkable concurrence between the results of experiment and the data supplied by comparative anatomy, that one function of the cerebellum is to regulate and combine the muscular movements required to perform a large number of our voluntary actions. And if the evidence, furnished by observation of the human species only, should prove to be such as to establish a constant relation between the development of this organ in him and the strength of his sexual propensity, (a position we by no means dispute, our argument being only directed against the insufficiency of the evidence on which it rests at present,) we must regard this as a *superadded* function, not as the fundamental purpose of the organ.

We conclude as we commenced, by disclaiming any hostility whatever to the phrenological system in the abstract; and by freely admitting the *general* coincidence between the indications of human character which are afforded by cranioscopical examination and those derived from a direct acquaintance. But we consider that in building up their system, the followers of Gall have been too disregardful of evidence sup-

plied from other sources than observation of man; and that they have been misled, as to the fundamental question of the connection of the cerebrum with the purely instinctive actions, by their inattention to comparative anatomy, which proves that the cerebrum *cannot* be the instrument of those actions; and have glossed over the important objection which the nondevelopment of the posterior lobes in the lower mammalia and in all the oviparous vertebrata interposes to the location of the animal propensities in them. So far, however, from availing ourselves of these errors, as conclusive arguments against the whole system, we have endeavored, by a new analysis of the propensities and emotions, to show that the facts supplied by comparative anatomy may be brought into conformity with the physiology of Gall; and that the phrenological system may be planted upon a much more secure and extended basis than it has yet possessed; a new and more exact series of observations, however, being required to build it up with anything like firmness and consistency. We cannot regard the question of the functions of the cerebellum as at all fundamental in its character; and can easily understand how a candid phrenologist like Dr. Cowan may, on this point, embrace the views held, we believe, by all the leading physiologists of the day.—*Brit. and For. Med. Review.*

Deposits in the Human Body.—The following scheme includes the various substances capable of occurring as deposits in the human body:

1. Protein compounds.
2. Fats: *a*, cholesterin; *b*, margarin and margaric acid; *c*, olein; *d*, fatty granules of uncertain composition.
3. Uric acid and urates.
4. Salts of lime: *a*, oxalate of lime; *b*, basic phosphate of lime; *c*, carbonate of lime.
5. Ammoniaco-magnesian phosphate.
6. Sulphuret of iron.
7. Bile-pigment.
8. Silica.
9. Various substances of easy solubility, deposited in consequence of evaporation, etc., as chloride of sodium, phosphate of soda, etc.

From one or more of these constituents are formed all the

concretions occurring in the human body. These are arranged by Vogel into

1. Such as are produced from the secreted fluids.
2. Such as are formed in the parenchyma of organs.—*Ibid.*

Case of Rupture of the Bladder.—Mr. Chaldecott records, in a late number of the Provincial Journal, an interesting case of this form of injury. The facts seem too clear to admit of doubt as to the nature of the case. The following is an outline of the history:

A healthy and temperate man, of about fifty, having passed two or three hours at a concert, ran across the street to empty his distended bladder, at twelve o'clock at night; and the night being dark, he did not see a newly erected post, with the top of which the lower part of his abdomen came in violent contact. He states that he fell, and with great difficulty reached his home, which was about a hundred yards distant.

Mr. Chaldecott saw him about half an hour after the accident. He was faint, and suffering severe pain over the abdomen, with desire, but no power to pass his urine. A full-sized catheter was passed easily and completely into the bladder, but no urine escaped. He was placed in bed, and hot fomentations were used to the belly until reaction took place, with which came increase of pain. Twenty leeches were applied, and a gum catheter, but with the same unsatisfactory result as before, not a drop of urine escaping through it.

Mr. Key being sent for, he arrived about eighteen hours after the accident, by which time the symptoms of peritonitis had increased to an alarming degree. The belly was painful, swollen, and tender; the pulse rapid and feeble; and the countenance anxious. Mr. Key passed a catheter, (none having been used for the previous four hours,) and about an ounce of bloody urine came through the instrument. Mr. Key concurred in opinion as to the nature of the injury, and the nearly hopeless prospect for the patient.

At ten o'clock, he had two scruples of liquor opii sedativus, which, after a few hours, produced comfortable sleep; and about four hours from Mr. Key's visit, Mr. Chaldecott passed the catheter, and drew off about four ounces of clear urine. From this time, the pain, swelling, and heat in the stomach and abdomen, gradually lessened, and it was evident that the

bladder now held, as on each introduction the catheter brought away clear urine.

From this time until the 13th, (that is, the sixth day from that on which the accident happened,) all went on well, excepting that a smart attack of gout occurred on the 10th, although the patient had never before suffered one; but on the 13th, from a strong desire to become independent of the catheter, he made straining efforts to pass his water, and he had scarcely passed a tablespoonful, when he felt (to use his own expression) something give way, and a burning pain all over his stomach and bowels, as if boiling water had been poured over them, and the same symptoms of faintness and distress occurred as when the accident first happened.

Mr. Chaldecott saw him within a few minutes of this reopening of the wound of his bladder, for such, no doubt, had been the consequence of his attempts to pass his water. On using the catheter, not more than a teaspoonful came through the tube. He had now again the symptoms of peritonitis. with the addition of incessant sickness. The same plan of treatment was again adopted, viz., fomentations, leeches, and a full opiate, with calomel.

About four hours after, on the introduction of the catheter, the bladder was again found to retain the urine; and although the peritonitis had increased to a severe degree, the pain, tenderness, and sickness, gradually subsided; and by a patient submission to the continued use of the catheter for a fortnight, no more interruption to the patient's amendment occurred, excepting that the gout, which, under the use of colchicum, had nearly disappeared, again became severe, no doubt from the fresh absorption of urine which this second accident had permitted to escape into the cavity of the peritonæum. But by this time it was presumed that the wound in the bladder had closed with sufficient firmness to allow the patient to yield to the desire to evacuate his urine without any straining efforts.

Two months have transpired since the commencement of the case, and he feels no other inconvenience from his accident excepting a dragging sensation over the abdomen, chiefly on the right side, which is much increased when he attempts to lie upon his left side.—*London Lancet.*

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MEDICAL CONVENTION IN PHILADELPHIA.

At the close of our last number, we made a passing reference to the approaching National Convention, in which a fear was intimated, that it would not be productive of the good which some of our brethren anticipate. Lest this should be construed into an expression of indifference or discouragement, we are led to recur to the subject.

Our apprehensions are threefold:

1. That all the schools of the United States will not send delegates, and that those who do, will not carefully discuss and set forth to those who represent them, their *desiderata;* without which there can be no adequate ground of hope, that what the convention may recommend, will be ratified by a sufficient number of our institutions to produce the desired uniformity.

2. That from the vast geographical extent of our country, and the consequent diversity of conditions under which our schools are placed, it will be difficult to establish uniformity. This will especially prove to be the case, if their representatives should not come together in a spirit of courteous and patient forbearance. If they do, much, though doubtless not all that is desirable, may be accomplished.

3. That the delegates of our medical societies will be overanxious to regulate the polity of our schools, of which most of them must ne-

cessarily know much less, and be less qualified to judge correctly, than those who have experience as teachers. Not a few of the imperfections which our medical institutions present, result from the state of society in which we live, and cannot be corrected by the convention; while others are the consequence of their number, the blame of which rests on our respective State Legislatures.

We foresee still other difficulties and embarrassments to the action of the convention, but they are of lesser magnitude, and may be obviated, provided its members shall consult together in a right spirit—that is, with a fixed determination not to part, till they have laid the foundation of an *American* profession. It is quite time that this was at least attempted. At present, there is as little intercourse and sympathy, between the physicians of the different States of the *Union* so called, as between those of the different kingdoms of Europe. All this is wrong, and should if possible be corrected. The medical profession is one throughout the world, and especially should its members in the same confederacy of States, compose one brotherhood. As a means of promoting this interesting object, and at the same time giving an impulse to medical inquiry and improvement, it is to be hoped, that the convention will not adjourn without taking measures to bring about, in some central city, a yearly meeting of physicians, surgeons, obstetricians, druggists and dentists, open to all who legitimately belong to these respective departments of the profession. Such meetings could not fail to call forth many valuable papers and reports of committees, the reading and discussion of which would be a source of both pleasure and improvement; while our physicians generally, would acquire a new impulse to observation and experimental research, and the publications of the association would elevate the character of our profession.

Our readers will recollect that the meeting in Philadelphia will be an adjournment of that held in New York in the month of May, 1846. The minutes of that meeting are now before us, and we observe that several committees were appointed, to make reports on the organization of a national association—on the primary education of students of medicine—on a higher standard of graduation—on state boards of examiners for the degree of M.D., instead of its being done by the professors—finally, on a uniform system of medical ethics. All these are important topics, which it is hoped the different committees will thoroughly investigate. There was also a committee, of which

Prof. Knight, of New Haven, was the chairman, appointed to prepare and publish an address to the physicians of the United States, explaining to them the objects of the proposed meeting in Philadelphia, and urging their cöoperation. From their address we make the following extract:

"It remains to be seen whether these desirable objects shall be accomplished. It is obvious that this can be done only by general and united exertion. All partial or divided action will be unavailing. It is equally true, that whatever is done must be accomplished by medical men themselves. In some countries, the interests of the medical profession, like others of great importance to the community, are regulated, sustained and protected by public law. In this country, no general law, even if it were desirable, can ever exist. In many of the States, no laws upon this subject have ever been enacted; in several, where they have formerly existed, they have been repealed; and in those where they still remain, there is a general complaint of their inefficiency. In this state of things, the only resource which remains is for medical men to establish and enforce among themselves such regulations as shall purify and elevate their own body, and thus more fully command the respect and confidence of their fellow men. The proposed association, if it becomes general, may be the means of accomplishing much of this good work. The opinions of such a body of the most respectable members of the profession, enjoying the confidence of their brethren and of the public, freely expressed after full consultation and careful deliberation, although not clothed with the authority of law, will still command respect, and, for the most part, compliance. A public opinion in regard to the subjects decided upon will be created, which will be more controlling than law. It is by creating and sustaining a sound and healthy public opinion, that the association will prove most beneficial."

We shall only add, that the University of Louisville has determined to send a delegation, consisting of Professors Drake, Cobb, and Yandell.

DISTINCTIVE CHARACTERISTICS OF THE FEMALE.

We thank our friend Prof. Meigs, of the Jefferson Medical School, for a copy of his lecture on a subject which he has studied with so much care and interest. It was delivered about the middle of his course, and published at the request of his class. Its object is to show that those who would comprehend the nature and treatment of the diseases of woman, must first make her peculiarities of physiology a special study; and to aid in this, the learned professor, in his own peculiar

manner, has presented many of her more striking characteristics, corporeal, intellectual and moral. After speaking of some of the social influences of man and woman, he breaks forth in the following quaint and animated style:

"Now, are these high considerations? and yet from what lowness do they spring! Yea, even from the germiferous tissue of the female. It is from her stroma that issues the generic as well as the genetic force. What a wondrous law! what a wondrous power is that which maintains each genus and species pure and unalloyed as when it issued from the Creator's hand! So great, so powerful, that each of them is set, as it were, within a magic ring, out of whose charmed round it can never stray; so that no wild and horrid passion, no brutal lust, no insane desire can break, much less change or abrogate the law that set forth the primordial models, 'each after his kind,' of the species of the globe. For notwithstanding the countless myriads of generations that from the remotest ages have reproduced individuals more numerous than the sands of the shore or the stars in the firmament, each blade of grass, still obedient to its generic law, still imitates exactly its primitive pattern; and every elephant or worm—every eagle that soars to the sun, or sparrow that chirps in the hedge—every man and every woman go steadily, like the current of a river, down time's flowing stream, ever ending, ever beginning, ever changing, yet immutably the same! I repeat it, the generic power is launched from the ovarian stroma. That is the *sole animal concrete* that is capable of producing yelk matter. Yelk matter is germinal or generic matter—I should rather say, reproductive matter. The male tissues are nowhere endowed with the power of this yelk production, and the sole elaboration of the stroma of ovaries is germ elaboration.

"Let me pronounce three words in your ear: *Stroma is sex.* In pronouncing these words, then, I wish you to appreciate the importance of that tissue—it was for the elaboration of germs that sex was appointed to the female, the human Zygozoaire. See, then, in this unobvious, apparently vile lump of animal texture, in the inner court of the temple of the body, the ark that contains the law, which keeps the genera unmixed, from age to age. How *can* you study this subject sufficiently?"

We are tempted to extract his closing paragraph, in the hope that it may inspire some of our young readers, while many of the older will no doubt find themselves in full sympathy with its ardent and amiable author:

"I do not believe in a physician who knows only calomel and rhubarb. I would have you fill your souls with knowledge; I would

have you bathe in it as in an ocean. Were I young again, and could I appreciate, as I now in some degree begin to do, the beauties of learning, I could not cast away as I have done a half century of time; but I would grow pale by the reflection of the midnight lamp, and I would never be satiated until my soul were satisfied with the fullness of knowledge. For what are we in the general but erring and curious inquirers? and does not the most highly cultivated intelligence to be found among men leave them at last, even the most gifted among them, blind, groping, feeble worms of the dust? What should be our motto and our cry, from the lowness of the human nature in which we lie groveling? *Excelsior! Excelsior!*"

INTRODUCTORY LECTURE ON PRACTICAL EDUCATION IN MEDICINE. BY DR. WATSON, OF THE NEW YORK HOSPITAL.

The object of this lecture is to magnify the importance of hospital instruction, in comparison with lecture-room and dispensary teachings; and its author has certainly made out a strong case. According to his observation, many young gentlemen commence the practice of both physic and surgery with very little dexterity, for want of practical opportunities. In speaking of the hospital to which he belongs, he says:

"A couple of youths, fresh from their studies, were directed here, many years ago, to apply cupping-glasses to the temples of a negro woman. The cups were at first applied moderately heated; but not adhering, they were held over the lamp until nearly roasting hot, and then applied anew. Still they would not stick. The process was again and again repeated, all to no purpose. The poor woman roared, and the poor lads labored, until the superintendent of the hospital, attracted by the noise, at length relieved her from her tormentors—archly observing to them as he entered the ward, that 'they had better practice on each other until they had learned how.'

"Not long since, as is my frequent custom, I requested some of the young men accompanying me through the wards, to examine and report upon the nature of an inflammatory swelling. The first that came forward was, as I afterwards ascertained, one who had just passed the ordeal of his examination. He could detect nothing peculiar in the case. The second was a student of scarcely a year's standing, who had previously examined similar cases. He pronounced the swelling to be an abscess already in need of the lancet. I allowed him to apply this, and, to the no small mortification of the other, he gave exit to a large collection of purulent matter.

"The practice of our profession is made up of details like these,

and a knowledge of these details, be assured, is never to be reached through lectures or deduced from abstract principles. The physician or surgeon, worthy of the name is such only so far as he is able to turn to advantage those innumerable and ever changing little circumstances of daily experience which language cannot teach. The senses of the student, as well as his intellectual faculties, require to be thoroughly and systematically indoctrinated: The study of principles may give employment to the mind, either in the closet or the class-room; but the hospital and the bedside are the schools for the senses. I had almost said, the only schools; there are others."

All this is true; but we must not forget that he whose knowledge is made up of practical details, is at last but an empiric. In the West and South, where students of medicine from the beginning are present (we cannot say always study) in the offices of their preceptors, it frequently happens, that they are better versed in the practical than the theoretical departments of the profession—can *do* many things which they cannot explain.

According to Dr. W., the hospitals of our eastern cities are very much neglected. But why are they? We fear that students are not so much to blame as the visitors, physicians and surgeons who manage those public charities. In the city of New York, there is one hospital, and five or six hundred students. Now, of what possible advantage would it be to these young gentlemen to crowd the wards of that establishment? They could neither see nor hear. Let an amphitheatre be erected contiguous to the wards, and a selection of patients daily brought into it, and there will be no lack of clinical students. As to serving in the hospital, of course but a small number could have the opportunity.

INTRODUCTORY LECTURE BEFORE THE BALTIMORE COLLEGE OF DENTAL SURGEONS. BY DR. WESTCOTT.

It affords us pleasure to take notice of a lecture of this kind, in connection with those of the general profession. The ignorance and neglect of physicians and surgeons first made the diseases of the teeth a specialty, and created a class of operators as little acquainted with the principles of our science, as physicians and surgeons were with the manipulations of dentistry. Having been made a special branch, it is likely to continue such; and the question now is, shall it be

rescued from the hands of pretenders and mere artists? We go in for its rescue, and shall at all times lend a hand towards its elevation. Having had some experience in both dental and ophthalmic surgery, we have no hesitation in saying, that the duties of the former require an equal knowledge of science, and greater dexterity of the hand, than those of the former; and still, while the scientific oculist is admitted to full rank in our profession, the scientific dentist is shut out. This is abundantly absurd, and we hope the time is not distant, when the learning, science and elevated bearing of those who devote themselves to that specialty, will redeem it from its congenital degradation. To this end, the dental colleges of Baltimore and Cincinnati cannot fail to contribute an abundant influence. Both have our best wishes.

The lecture of Dr. W., both in its manner and matter, will bear a comparison with the best introductories of the season; but we have extended our remarks so far as to have room for a single extract only:

"For some time, the scheme of establishihg a college expressly for this purpose was regarded by the community, and even by many of the profession, as chimerical. But thanks to the untiring exertions of its enterprising founder, the enlightened policy of the State Legislature, and to the cheering countenance and liberal support of the citizens of Baltimore, the experiment has been fully and successfully tried; the practicability and the great public utility of such an organization, have been fully proved; and the objections arising from the fears of friends, or the ill-boding prognostications of enemies have been most triumphantly refuted. This experiment has not only been successful in itself considered, but it has become the corner-stone of a new and more enlightened policy, both in regard to the public and the profession."

INTRODUCTORY LECTURE ON LIFE. BY PROFESSOR DARRACH.

The Professor of the Theory and Practice in the medical department of *Pennsylvania College*, in selecting a topic for the opening of his course, seems to have assumed that his pupils were further advanced in the study of science than that class of auditors generally is. Its abstruseness is suggested by its very title—LIFE. After contrasting organic with inorganic bodies, he proceeds to a classification of the former into three divisions—Vegetables, Animals, and Man; the latter deriving his claim to a separation from all the rest, by the possession of a soul. In sketching the characteristics of these di-

visions, we do not observe anything particularly new; but many parts are executed with spirit, and some passages are eloquent; while, although a few are recondite, and even border on the obscure, none are heavy or unreadable.

AN ESSAY ON ABSCESS OF THE JAWS. BY DR. HULLIHEN, OF WHEELING.

This little essay, by one of the most scientific dental surgeons of the West, appears to be well written, and relates to an important disease. We have looked over it with interest, but it is too exclusively special to afford anything, which extracted, would be interesting to our readers generally.

LETHEAN VAPOR.

We lately had an opportunity of witnessing the extraction of teeth from two gentlemen who had inhaled this vapor. They were patients of Mr. Goddard, and Mr. Somerby was present and assisted.

Case 1. A vigorous man, in or approaching middle life. A short time before the inhalation commenced, his pulse was 70 in a minute; full and strong. When about to be given, though he was not apparently alarmed, it rose to 112. After a short inhalation, less than a minute, the tube fell from his hand, and the operation was commenced. His pulse had then risen to 144. His pupils did not become dilated. From difficulty in the operation, it proved rather tedious; but he remained motionless, and made no manifestation of pain. In about two minutes from the time he passed into a state of insensibility, he suddenly emerged from it. His pulse was then 120, and in a quarter of an hour had fallen to 70. His intellectual faculties and feelings were quite natural immediately on awaking. He was unconscious of any pain, but said he had dreamed of some kind of crash.

Case 2. A young man had two fangs of different teeth extracted. Pulse before breathing the gas, 88, and increased but a few beats afterwards. No dilatation of the pupil. After the loss of the first fang, was aroused, and said he had felt the cutting of the gums, but not the extraction. Inhaled the gas a second time, and during the operation which followed, stretched himself out, and acted as he might have done if the vapor had not been breathed. On recovering, however, he declared that he had not felt any pain. The sensorial functions seemed to have been asleep, but the excito-motory awake.

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MEDICINE AND SURGERY.

APRIL, 1847.

ART. I.—*An Essay on Eclampsia Parturientium, with Cases and Remarks.* By JOHN DAWSON, M.D., of Jamestown, Ohio.

Puerperal convulsions, not from the frequency of their occurrence, but from the danger connected with them, must always be regarded by the practitioner of medicine with a considerable degree of interest. Whether they are more frequent in private than in hospital practice, in villages and country situations than in cities, or had more mortality connected with them formerly than at present, are questions, the solution of which may be somewhat aided by having cases of interest occasionally reported.

Within the last eight years, we have witnessed some few cases, an account of which, from the characters of the complaint and the effects of remedies, may be of some service to the profession. We will here insert the cases, and then offer such views upon them as seem to be warranted:

Case 1.—Mrs. G., æt. 42 years, was taken on the 10th of December, 1843, at the seventh month of utero-gestation, with

pain in the stomach, which, to use her own language, was accompanied with the sensation of a "rolling of the stomach upwards." Dr. Winans having been called in, administered anodynes and antispasmodics, which gave temporary relief.

Dec. 11, 2 o'clock, A. M. I accompanied Dr. W. at this visit, and found the patient just recovering from a convulsion, the principal features of which denoted it to be of the apoplectic kind; the system was violently agitated and the countenance very much distorted. Bled ℥xxx.

At 6 o'clock, we were summoned again, with the news that she was laboring under another convulsion. It being now about daylight, the countenance was found pale and distorted; intellectual faculties deranged; pulse frequent and rather feeble; stertor; and froth working out of the angles of the mouth.

On examining the arm to bleed her again, we found that the orifice previously made had come open in her struggling, and that she had bled ten or twelve ounces. Ordered a large dose of cream of tartar and jalap.

At 2 o'clock, P. M., visited her again, and found that since our last visit she had had three convulsions, and was at the time laboring under deep coma, full and hard pulse, with a wild expression of the countenance and stertorous breathing. Bled ℥xl. Shortly after this, she became sick; perspiration made its appearance, and after this she seemed more tranquil.

At 6 o'clock, P. M., saw her again; and finding that there had been no convulsions since the last visit, she was examined per vaginam, and the os tincæ found opened to about the size of a quarter of a dollar, but rather rigid.

We now undertook to ascertain if the fœtus was still living. The stethoscope was applied over the region of the uterus; but neither the pulsations of the fœtal heart nor the bellows sound of the placenta could be heard. Besides, there was an escape of gas of an ammoniacal odor from the vagina, which Dr. Winans said that, in an experience of some twenty years, he had observed to coincide with the existence of a dead fœtus *in utero.*

Feeling satisfied that the fœtus was dead, secale cornutum

was administered at proper intervals, in two scruple doses, until two drachms were taken. No effects followed, not even the slightest uneasiness in the uterine region.

On the 12th, an examination per vaginam was again made. The os tincæ was now found sufficiently dilated to accomplish the delivery, which was done, of a dead fœtus.

On the 13th, the patient had two motions of the bowels, from the effects of the cream of tartar and jalap previously administered, and from this period had a rapid convalescence.

Case 2.—Mrs. H. S., a lady about 20 years old and apparently of good constitution, was taken, during the seventh month of utero-gestation, with pain in the stomach, after eating some green, sour apples. She had, however, previously experienced some slight pain in the head.

She was first visited at 2 o'clock, A. M., on the 12th of September, 1844, and was found complaining of pain in the stomach alternating with pain in the head, with occasionally an effort to vomit; pulse somewhat accelerated and small; face once in a while flushed and then pale; skin slightly exalted in temperature; tongue clean; respiration natural. Bled ℥xvi, and gave an antispasmodic of sulphuric ether and laudanum. This prescription having done but little or no good, an emetic of ipecacuanha was administered, which produced free emesis and relieved the pain in the stomach.

At 7 o'clock, same date, she was still complaining of severe headache, with inability to keep her eyes fixed on any one object; skin hot; face flushed; eyes suffused; pupils rather contracted. Prescribed the cold douche to the head, and a cathartic.

In about ten minutes after taking the cathartic, a convulsion made its appearance, and continued about two or three minutes; a second followed in about twenty minutes; a third soon made its appearance; and before they were arrested, she had thirty-five paroxysms of the same character, with intervals of some fifteen or twenty minutes between them. After the eighth, an examination per vaginam was made. The os tincæ

was found to be slightly dilated, sufficient to ascertain that there was no pulsation in the umbilical cord. A dilatation was then attempted and perfected sufficiently to use the crotchet, by which the fœtus was extracted.

The convulsions continued after the delivery of the fœtus, until, as above remarked, she had in all some thirty-five. The countenance during these fits became very pale and haggard; the extremities cold; the pulse small and irregular; the respiration very laborious, and the ability to swallow almost entirely suspended.

In this stage of the case, a dose of sulphuric ether and laudanum was with some difficulty introduced into the stomach, and an application of oil of turpentine, tincture of capsicum and mustard made to the extremities, for the purpose of producing prompt vesication. The effect of this application was very salutary. The extremities soon grew warm, the circulation became equalized, and the convulsions gradually diminished in frequency and severity until they entirely subsided. Her convalescence was slow, and denoted that the brain had been dangerously assailed.

Case 3.—Mrs. J., æt. about 20 years, of good constitution, began to complain, during the sixth month of utero-gestation, with pain in the head alternating with pain in the stomach. This case occurred about the first of April last.

Dr. Winans was immediately called in, and bled her, after which he administered an active cathartic. In about an hour after Dr. Winans's visit, I saw the patient in consultation with him. At this time she was laboring under a convulsion which had followed a paroxysm of vomiting. After the convulsion subsided, she was again bled; but owing to the smallness of the vein and the weakness of the pulse, we did not succeed in getting a sufficient quantity of blood. It was, however, but a few minutes after the second, until a third convulsion followed; and they continued to recur, with intervals of twenty or thirty minutes, until she had some eight or ten.

An examination per vaginam was made, but the os tinca

was found completely closed up and rigid. Another attempt was made to draw blood, which was successful. During the course of the day, the uterus was examined with the stethoscope and per vaginam, to ascertain the condition of its contents; but neither the pulsations of the fœtal heart, the bellows sound of the placenta, nor any other test that could be relied upon, gave us any evidence that the child was alive. Besides the absence of the usual signs of life, the fœtus *in utero* could be moved from side to side of the abdomen without imparting to the hand the least evidence that it was still living.

The convulsions being still urgent, and the evidence being pretty conclusive that they could not be arrested until the contents of the uterus were in some way or other removed, a dilatation of the uterus was attempted, and, by the advice of Dr. Joshua Martin, the perforator was used in order to expedite as much as possible the delivery. We did not, however, succeed; for after opening the head of the fœtus, it was found impossible to extract it. Some uterine pain having been developed during our operations, it was thought prudent to cease all mechanical appliances, and trust for a time to the pains of nature for its expulsion. We were not disappointed: the uterus rallied its energies, and expelled the fœtus in the course of some three hours.

On the third or fourth day after the fœtus was delivered, puerperal mania made its appearance. But as I intend to make this form of puerperal disease the subject of a future notice, any further remarks on the case in this connection will be omitted.

Case 4.—Mrs. Q., a lady of feeble constitution, æt. 38 years, and the mother of eight children, was afflicted with intermittent fever about three weeks previous to giving birth to a healthy child. The accouchement was as favorable as usual, and took place on the 20th of September, 1845. A few days after her confinement, she commenced complaining of a periodic pain above the right eye, which grew worse every succeeding paroxysm. On the 9th of October, her husband pro-

cured a box of patent purgative pills, three of which operated to excess, producing hypercatharsis. While the pills were operating, she complained of dizziness, and said she feared she should go crazy. Shortly after this, her mind became confused; she lost the ability to recognise her friends, and, to some extent, the power to speak.

At 5 o'clock of the above date, (October 9,) Dr. Winans saw her for the first time. She was then breathing slow and hard; eyes turned to the right side, at times fixed, then quivering in their sockets; pulse slow and soft; skin moist; right arm and leg partially paralyzed; deglutition difficult; and the power to speak entirely gone. On raising her head off the pillow, she was seized with a spasm. Prescription, tinct. opii gtt. xx, and a blister to the back of the neck; tinct. opii to be repeated if spasms returned.

On October 10th, A. M., she was visited again, and the friends reported that through the past night the spasms had recurred. She was now comatose. Prescription, cream of tartar and jalap. At 2 o'clock, P. M., the medicine operated on the bowels; but later in the evening, the spasms changed into hard convulsions, and at 11 o'clock; P. M., she was found to be dying.

Case 5.—Mrs. L., a lady of apparently good constitution, was taken, in the month of April, 1840, at the last period of her second pregnancy, with pain in the head and stomach. When she was first seen, she was walking the floor, crying out, "Oh, my head! oh, my stomach!" She was bled freely; after which the uterus was found to be contracting vigorously; and an examination being made per vaginam, the head of the child was found to have descended into the lower strait. Anticipating convulsions, she was immediately delivered with the forceps. Before the delivery was accomplished, she was seized with a violent convulsion, which continued until after the placenta was removed. After the convulsion went off, she lay in a profound coma, which continued for about an hour. She then partially returned to her senses, and answered some questions indistinctly, her tongue being somewhat para-

lyzed. In less than three hours after delivery, a second convulsion followed, which again left her in a state of coma. From this condition she never recovered; a third soon followed, in which she expired.

The child of this woman was delivered alive, and, to all appearances, in a healthy condition.

Case 6.—Miss Q., an umarried female, was taken in labor in 1839. A midwife was called in to manage the accouchement. During the progress of the labor, she was seized with a convulsion. A physician of the vicinity was called, who used the perforator; and after some considerable difficulty, with the assistance of Dr. Winans, the delivery of the fœtus was accomplished. The convulsions after delivery ceased for about an hour or more, after which they returned, and the patient expired.

In this case, the pulse was small, and the system in a state of prostration. All attention, therefore, 'was directed to the delivery, in the hope that when this was accomplished, the convulsions would cease. In this there was a disappointment. The system never rallied; the pulse contined small and weak until the patient expired.

Case 7.—Mrs. K., during her third pregnancy, and at the seventh or eighth month of gestation, was attacked with convulsions. She had suffered eight paroxysms before anything was done for her relief. After the eighth fit passed off, she was bled freely, and took an antispasmodic. This arrested the convulsions, leaving the patient comatose. The uterus was now examined, and found to contain a dead fœtus. This was removed, leaving the patient still in a state of coma.

Some two or three days after she was delivered, she was attacked again with convulsions. She was again bled, also blistered and purged. This last attack gave rise to hemiplegia and idiocy, which have resisted everything addressed for their removal. Since the advent of these lesions, she has conceived three times. In two of the instances, the children were pre-

mature; the other one went to full time, and was delivered in a healthy condition.

During the accouchement, it was noticed that only one-half of the uterus contracted, the other half being paralyzed in the same way as the extremities of that side.

REMARKS.

The grave character of the malady, of which the cases detailed are perhaps a fair sample as it occurs in country practice, makes everything connected in any way with its origin, pathology, or treatment, a matter of serious interest to the physician; for as we have seen, it at times makes its advent and accomplishes its fatal work without giving much time to reflect upon its causes, or the treatment proper to be instituted.

Concerning the habit of those most predisposed but little is certainly known. Among the cases detailed are all the principal varieties of habit—the weak and effeminate, the vigorous and robust. Authors, however, in regard to this matter, think that irritable and plethoric women are most liable to the epileptic and apoplectic varieties, while those laboring under a nervous diathesis are oftener the subjects of the species generally denominated the hysterical. Still, as before remarked, our knowledge in relation to this part of our subject is limited. We often see the extremes of habit exempt, while those not at all remarkable for any peculiarity in this respect are the subjects of an attack.

All experience seems to warrant the conclusion that women are most liable to convulsions during their first labor. Of the seven cases detailed in this paper, three took the complaint the first time they were confined in childbed, two at the second time, one at the third, and the other at the ninth. Dr. Clark reports nineteen cases, sixteen of which happened to women at their first pregnancy; Merriman forty-eight, thirty-six of which were at first pregnancy; Collins thirty, twenty-nine of which were at first pregnancy; Lee fifty-four, twenty-six of which were at first pregnancy, three at the second, two at

the third, two at the fourth, one at the ninth, one at the tenth, and of the remaining nineteen cases there is no account.

Reasonably, from these facts, it may be inferred that some of the things pertaining to the etiology of this malady may be most successfully sought for by an investigation of the circumstances connected with this period. What is there, then, in a first more than any other pregnancy, which predisposes females to an attack of the malady? To this question, in the present state of our knowledge, it is hard to give anything like a satisfactory answer. As a general principle it may be submitted, that the changes made on the constitution of females by conception and pregnancy are by no means prejudicial to health. Married, always enjoy better health, *cœteris paribus*, than unmarried females. While, nevertheless, the validity of this position cannot be assailed, it is equally true that many females, in undergoing the changes incident to pregnancy, become affected in ways that predispose them not only to convulsions, but also to other complaints of both mind and body. How often is it the case that we see a woman of happy disposition, dignified address, and well balanced mind, rendered peevish, fretful, irritable, and, in some instances, imbecile, from the alterations made on her system by pregnancy!

Comparatively speaking, it is also a fact that very few women approach the period of parturition the first time without some considerable degree of apprehension. In part, this proceeds from the dread of what in reality they have to suffer; and in very many cases this dread is increased by reports of accidents and fatal cases unguardedly made in their presence. From data of this character they augur for themselves the worst of consequences in their approaching confinement; and it too often happens that unless great care is exercised in expelling these illusions, and inspiring a reasonable degree of hope and confidence in the ability of the attending accoucheur, their apprehensions are realized.

In the organism, also, changes are frequently developed during a first pregnancy that exercise an unfavorable inflence. We allude to those which take place primarily in the organs

of generation, and secondarily in other parts, between which and these there exists a close sympathetic relation. The distension of the abdomen, enlargement of the walls of the uterus, and alterations in the nutritive functions incident to pregnancy, are more severely felt when the system is for the first time undergoing these changes than at subsequent periods. To the febrile disposition occasionally attending pregnancy, to indigestion, costiveness, and cerebral disturbances, they, it is reasonable to suppose, are at this period most liable. Enumerated also in connection with these circumstances, any one of which it might be presumed would be adequate to predispose the system to convulsions, the changes which take place in the blood, as all know, impart to the system more or less of an inflammatory diathesis, which undoubtedly would be more seriously felt in a first pregnancy than afterwards.

Enough, we conclude, has been submitted in our attempt to account for the greater liability of women in first than in subsequent labors; we will therefore proceed to another part of our subject—the period of gestation in which convulsions are most liable to occur:

By reference to the notes of the cases we have detailed, we find that the disease occurred to one at the sixth month of gestation, to two at the seventh, to one at the eighth, to one at what was supposed to be the proper period of parturition, to one some twenty days after being delivered of a healthy child, and to one both before and after being delivered. In Dewees's System of Midwifery there are some eight cases of convulsions detailed; of these it may be inferred from what is said, that the disease happened to three during the eighth month of gestation, and to the other five some time in the ninth or at the proper period of parturition. Dr. Lee remarks: "They may occur in the latter months of pregnancy, before the uterus has begun to contract, during the different stages of labor, and several days or weeks after delivery." He adds: "I have never met with a case of true puerperal convulsions before the sixth month of pregnancy."

From all these facts, it appears that the complaint may take

place at any time during gestation subsequent to the sixth month, at the proper period of parturition, or after the birth of the child. It seems, however, to be least common during the early months of pregnancy and after the delivery of the child.

That convulsions, like some other puerperal affections, are more prevalent during some seasons than others is a position not supported by anything in our limited experience. Three of the cases detailed occurred in one year in the practice of myself and partner, Dr. Winans, and these happened, too, at a time when other puerperal diseases were common. Still we regard this as a mere coincidence, not entitled to any confidence in making up an opinion on the subject. It might be remarked here, that Denman thinks women more liable some years than others.

Most writers from the time of Burns make distinctions in the disease, dividing it into some three species, the hysterical, the epileptic, and the apoplectic. Of the propriety of these distinctions we suppose there is no doubt. Keeping up a distinction between the hysterical and other kinds is indispensable, from the fact that the therapeutics proper and efficacious in the former may prove detrimental if not fatal in the latter. Burns says: "The most frequent species of puerperal convulsions is of the epileptic kind, which occurs fifty times for once that the others appear." Seven of the cases reported by Dewees were either of the epileptic or apoplectic variety, the other one being of a hysterical character. The cases we have detailed were of the epileptic or apoplectic kind. Women of different constitutions and temperaments it might be presumed would be liable to different species of the complaint. With those of weak, effeminate powers of constitution and nervous diathesis, subject to occasional attacks of hysteria, the hysterical variety would be most common. On the contrary, women with a full habit of body, irritable in disposition, or having labored under some disease of the brain or epilepsy in early life, would be most likely to have the other varieties.

The Signs which Precede and Attend Convulsions.—With respect to the signs which precede convulsions, it may be stated that when they are appreciable at all, they vary according to the species of the complaint with which the patient is affected. Those attending the hysterical variety have of course more or less of what are usually denominated hysterical symptoms. According to Burns, the fits are preceded by a timid state of the mind, are of sudden invasion, attended with globus or struggling about the throat, have no foaming of the mouth, nor much distortion in the muscles of the face. Dewees regards opisthotonos as strongly marking this species of convulsion. The circulation is not so much disturbed in this as in the other varieties, the pulse never acquiring that extreme degree of velocity and tenuity.

Denoting the approach of the epileptic and apoplectic varieties are a number of signs so generally common to both, that for all practical purposes they may be considered together. In both varieties, cerebral disturbances are predominant. For days, sometimes, before the accession of the fit, there is a sense of fullness in the head, swimming, vertigo or pain; and often patients complain of a want of steadiness in the faculties of the mind. Occasionally the convulsion is ushered in by intense pain in the head: the patient cries out, "Oh, my head! my head!" In some instances, the pain is confined to a particular spot, the patient describing the sensation as being that of a nail driven through the head. Associated with this distress in the head, there is in some cases a violent cramp or pain in the stomach. This phenomenon has been noticed by Burns, Denman, and Dewees: the last, however, says that he knows nothing of it from his own experience. In four of the seven cases reported in this paper, the women complained more or less of distress in the stomach. In the first case, the sensation was that of a "rolling of the stomach upwards;" the second case was ushered in with pain in the stomach, after eating green, sour apples; in the third case, the patient complained alternately of pain in the head and stomach; when called to the fifth case, the woman was found walking the room and crying

out, "Oh, my head! oh, my stomach!" During the presence of the fit, there is often manifested a phenomenon that appears to be characteristic. The following is Denman's description of it: "With the foaming of the mouth, there is also a sharp hissing noise, produced by fixing the teeth and by the sudden motion of the under lip, as if attempts were made to retract the saliva back into the mouth; and by this noise I have been generally able to discern the state of a patient in convulsions, though she was in another room." It is most likely that Dewees refers to this same thing, in speaking of "a peculiar sibilating noise made by the mouth, not unlike what is termed a cat spitting." In no case did we witness the *aura epileptica* so common in epilepsy.

Cause.—On the etiology of this malady it is difficult to write with precision, owing to the fact that as a general rule, this, like other complaints involving the integrity of the nervous centres, is imperfectly understood. Occurring in opposite conditions of the general system, and proceeding at times from causes altogether different in their nature, the complaint is often the result of lesions, functional or structural, not easily comprehended. Altogether the most formidable in its character in every case is the trouble in the cerebral organs; indeed, this seems to be the *sine qua non* of the disorder. But whether this proceeds from primary disease of the brain and its appendages, or from a source of irritation located in some other part of the system, by which the brain becomes sympathetically affected, are questions of perhaps as much importance as any that we are called upon to decide.

That the primary cause is often in the brain seems to us quite probable. This may proceed, as we suppose, from mental distress, or from there being a habitual determination of blood, during gestation, to the head. In regard to the former, it is said that it has been more particularly observed among those women whose unfortunate situation renders pregnancy an evil instead of a blessing; for from their seclusion, and from a deprivation of the comforts of society, their

sense of present ill or apprehension of future distress, such women are especially subject to convulsions at the time of labor, and to become maniacal after their delivery. (Denman.) Sudden and violent impressions on the mind are, indeed, if we credit the best of testimony, capable of inducing an attack of convulsions, without the concurrence of any other appreciable cause. With respect to cases, also, originating from hyperemia of the vessels proper of the encephalon, we think there can be but little doubt. A female laboring under a tendency to headache or any vertiginous complaint previous to pregnancy, or to epilepsy in early life, would be most likely, as gestation progressed, from the pressure of the child on the abdominal aorta, to have such an affection increased; and this, if sufficient to produce compression of the brain, would end in convulsions. Besides, we know that in many instances the disease of the brain is such as to give rise to lesions producing hemiplegia, idiocy, and occasionally sudden death. The examples there have been of serious and fatal lesions of the brain, although of nothing like an identical or constant character, are sufficient to make the position very plausible, that the nervous centres, in some cases at least, are primarily assailed. While, however, we conclude that this is the case, we are aware that by far the largest proportion owe their origin to sources of irritation located in other parts of the system.

Great distension of the uterine fibres, or rather the alterations the parietes of the uterus undergo in the last period of gestation, may be reckoned as exercising some agency in the production of the malady. This may be inferred, among other things, from the fact that convulsions are much more common, as we have seen, in a first than in subsequent labors. It seems also that they are most frequent at the latter periods of gestation, the time when the uterine fibres, as Dewees remarks, are at their greatest stretch. These alterations in the uterus, when associated with other things favorable to convulsions, may be regarded as making up a condition of the system in which, relatively speaking, the complaint is not unfrequently developed.

Another agency occasionally found in operation, is that proceeding from a dead fœtus *in utero.* In his work on midwifery, Denman says: "When women have convulsions, the death of a child ought generallly to be esteemed rather an effect than a cause." Generally speaking, this is probably correct; still there are cases in which a dead child in the uterus seems to be the only appreciable cause, giving rise to a kind of uterine irritation that is ultimately manifested in convulsions. After the death of a fœtus *in utero* from accident, violence, or anything of the kind, all the blood which it received must necessarily be retained in the vessels of the mother. The impulse imparted to the circulating fluid of the mother by this change would of course exercise no favorable influence in a female otherwise predisposed, and probably would be adequate to produce the malady. What also to some extent favors this position, is that very commonly, after a woman has been delivered of a putrid child, the convulsions subside.

Irregularities of diet, indigestible food, or the excessive use of stimulants, there are good reasons to believe, occasion once in a while the malady before us. In one of the cases we have detailed, the woman had eaten a quantity of unripe, sour apples, and shortly afterwards commenced complaining of her stomach and head. Some of the cases related by Dr. Lee also followed the use of indigestible food and stimulants. Denman relates a case which fell into a convulsion from the presence of some offensive matter in the stomach. After the first fit, he advised the woman to irritate her throat with her finger until she vomited five or six times, after which the fits subsided. The severe pain in the stomach, of which some patients complain, may have some connection with the ingesta. Of this, however, we know nothing from experience, except of the case related, in which, to say the least of it, there was a coincidence: the patient partook of the indigestible foood, and the act was followed by pain in the stomach and convulsions.*

* In January, 1842, Dr. Winans and myself were called on to attend the accouchement of a negress pregnant with her second child. She had gone to full time, and was complaining of irregular pain in the uterus, that worked up into her

As all know, during pregnancy the appetite is subject to great changes. Anorexia there is sometimes, but more commonly a craving desire for food in large quantities and of objectionable qualities, affects many women during the last months of pregnancy. Indulged in, we can see no good reasons why these indigestible articles may not irritate the alimentary canal so as to give rise to convulsions in pregnant women, where the predisposition is already considerable, in the same way that they cause them in children and other classes of persons laboring under great gastro-intestinal sensibility. Hence it is always proper to enjoin caution with respect to this matter on those women who labor under the depraved state of appetite to which we have alluded.

Differing widely from the conditions of the system to which we have adverted, there is another in which the disease has been manifested, that will next claim attention. This seems to be the consequence of great exhaustion from hemorrhage. Burns notices convulsions originating from this cause, and submits his opinion on the treatment proper to be adopted. In the number of the Western Journal for July, August and September, 1836, there is an extract from the Southern Medical and Surgical Journal, in which is contained an account of two cases that the writer attributed to hemorrhage from a relaxed and flaccid condition of the uterus. In one case the hemorrhage preceded, in the other it succeeded delivery; in

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stomach, giving rise to excessive cramping sensations in this organ, with occasional vomitings. Laudanum in large and repeated doses was administered without producing any relief. The os uteri was examined, and found to be dilating. She continued in a lingering condition for some hours, during which time the pain in the stomach was periodical, corresponding to the labor pains, and intensely severe, so much so that at each time they recurred, she screamed violently, and threw herself in all possible attitudes to get ease. After being in this condition for some length of time, and finding no relief from anything done, she took a notion for whisky. Some being obtained, she drank about one pint without the knowledge of any one but herself. The effect of this was prompt relief, without producing intoxication. The pains also after this became regular, and she was speedily delivered. This woman said that her first labor was characterized in a similar manner.

both, the convulsions subsided on the use of frictions to the hypogastric region, continued until the uterus was felt to have contracted.

Besides the causes to which allusion has been made, this malady is apparently at times the result of constipation, of a peculiar condition of the nervous system of the uterus, or of the pains of labor. A loaded state of the larger bowels would as a matter of course destroy the equilibrium of the circulating fluid, by lessening the quantity to the inferior extremities, and increasing it to the superior and the cavity of the cranium. As the result of this, abnormal accumulations in the vessels of the brain might arise sufficient to cause compression or some o her derangement of that organ. That the complaint is occasionally also the consequence of a peculiar condition of the nervous system of the uterus, there is good testimony. This may be an unnatural degree of irritability in the uterus, or rather in the nerves of this organ. How often, as previously remarked, is it the case that women, after impregnation, are rendered peculiarly irritable in both mind and body! Occurring under such circumstances, we are able in many cases to find nothing more rational to which it should be attributed than idiosyncrasy. Labor pains, although the result of a natural function, have the reputation of being concerned in the production of the complaint before us. Characterized with great severity, in a constitution naturally irritable, labor pains, we have no doubt, are at times the principal cause of the mischief. As yet we have witnessed no case that we knew was due entirely to this cause. Other disturbances we have seen, which renders the matter in our estimation very probable. Not long since, my partner, Dr. Winans, delivered a woman who had very severe labor pains during the last stage of a first labor. As soon as the pains grew severe, she became maniacal, and continued in this condition, perfectly unconscious, until after delivery. In a short time after this event, she returned to her senses, and continued rational. We attended her in her third accouchement. As the pains of labor grew severe, she seemed to lose all command of herself, and had it not been that it

was a favorable presentation, and that delivery was speedily accomplished, we have no hesitancy in saying that serious trouble would have occurred.

It is supposed by some that when the pains of labor become severe, too much so for the system to bear, they are superseded by convulsions; convulsions take their place, and they either cease altogether, or become irregular. In James's Burns there is a note published, stating that in a case of parturition attended by Dr. Clark, of London, a convulsion occurred while the hand of the doctor was in the uterus, when of course he had an opportunity of observing how the organ was affected. He remarked that instead of a regular contraction taking place, the uterus seemed to flutter, and be irregularly contracted, and relaxed again quickly; and he was disposed to believe it was in that state during the presence of every case of convulsions. In his work, the Zoonomia, Darwin advances more positively the opinion to which we have alluded. "In difficult parturition," he remarks, "it sometimes happens that general convulsions are excited to relieve the pain of labor, instead of the exertions of those muscles of the abdomen and diaphragm which ought to forward the exclusion of the child. That is, instead of the particular muscular actions which ought to be excited by sensation to remove the offending cause, general convulsions are produced by the power of volition, which still the pain, as in common epilepsy, without removing the cause; and as the parturition is not thus promoted, the convulsions continue till the sensorial power is exhausted—that is, till death." Lately we had a case of labor in which there were no pains except a slight uneasiness in the back. Instead of complaining of uterine pains, the woman complained of her head: it ached very much at times, and at other times it was vertiginous. This state of things continued for some eighteen hours, when uterine pains were developed, after which the distress in the head immediately subsided. During the continuance of the pain and other distress in the head, the os uteri became so much relaxed that when

the regular pains of labor set in, it required but a very few of them to produce the expulsion of the child.

Concerning the cause of those convulsions denominated hysterical, there is little definitely known. Of such the symptoms are different from those of the other varieties. Those of a premonitory character are usually absent. The fits are less severe, are not attended with the same amount of cerebral disturbance, and have no frothing at the mouth, nor any of the peculiar sibilating noise so characteristic of the other varieties. Delicate and nervous women, Dewees tells us, are most frequently the subjects of this species of the complaint. As a matter of course, the trouble must be sought for in an investigation of the habit, predisposition, and actual state of the patient affected. Carefully invoked, these in a majority of instances will reveal a pathological foundation, upon which a rational plan of treatment may be predicated.

To sum up our remarks on this head, we submit the following conclusions:

1. The complaint is sometimes the result of primary disease in the brain, as when it proceeds from violent mental emotions, from headache and other cerebral distress during pregnancy, or from epilepsy and other circumstances in early life predisposing the patient to cerebral hyperemia.

2. Most frequently it seems to be developed at the time when the uterus and abdominal muscles are at their greatest state of distension; and hence it is right to regard these conditions as standing, in many instances, in a very close relation to the cause of the complaint.

3. It may depend on irritation of the uterus, from a dead fœtus.

4. It may be caused by overloading or irritating the alimentary canal with indigestible food.

5. Some cases appear to depend on great exhaustion from hemorrhage.

6. It may depend upon habitual constipation;

7. Upon a peculiarly irritable condition of the nervous system of the uterus;

8. Upon violent labor pains.

Upon the above we look as the principal elements of the trouble that exists in connection with the origin of the malady before us. That any one of them may be capable of stirring up those disturbances that characterise the complaint, is not at all unreasonable. Oftener, perhaps, it will be found to be the result of several of them combined. And always the practitioner, in trying to ascertain which of them has had most concern in giving rise to the complaint, will find himself more or less embarrassed. To do this, nevertheless, difficult as it is, is in many instances indispensable to the successful application of remedies.

Post Mortem Appearances.—In regard to the structural lesions pertaining to this disease, our knowledge is limited. There are nevertheless some observations, which, if posted up, may be of some service to the profession. Denman tells us of a case, related to him by Mr. Hewson, where an effusion of blood was found after death on the surface of the brain. He also mentions a case, related by Dr. Hooper, where a coagulum of blood weighing nearly four ounces was found between the dura and pia mater. He himself in no instance ever witnessed an effusion of blood in the brain, though he has seen the vessels very turgid. Of the four cases examined by Dr. Ramsbotham, one showed blood to be extravasated between the dura and pia mater and on the orbital process under the right lobe. In seven of the fifty-four cases contained in the tabular statement of Dr. Lee, a post mortem examination was made. One presented turgescence of the bloodvessels of the pia mater. In two of the others, the vessels of the brain generally were distended. In the fourth, there were softening of the brain, effusion of serum into the ventricles, and tubercles in the lungs. The fifth presented great vascularity around the tuber annulare, with a tablespoonful of serum at the base of the brain. In the sixth, there were serum in the ventricles, a small scrofulous tumor on the basilary artery, and a portion of the right lobe was soft and of a yellowish color. The seventh presented a thick layer of lymph

on the surfaces of both hemispheres, the ventricles filled with serum, softening of the base, and veins filled with firm coagula. Dewees gives a case in which there was post mortem dissection: "The longitudinal sinus of the dura mater contained by estimate between two and three ounces of blood; the posterior left ventricle was filled with a bloody serum; the other ventricles appeared sound, as did the other parts of the brain; no other part examined." In addition to the lesions of the nervous centres, there have been some other appearances observed that are worth noticing. Denman says that he has examined many women who have died of convulsions, and in all the heart was unusually flaccid, without a single drop of blood in the auricles or ventricles. He also states in a note, that in almost every case that he has seen, there was, after delivery, a greater or less degree of abdominal inflammation.

Prognosis.—That the term dangerous applies to the complaint before us with considerable relevancy, is a position which the experienced physician will always sanction. Varied, however, it is by the variety with which the patient is affected, and also by a number of other circumstances. As a general rule, it is presumable that the lesions in the hysterical are less grave than in the other varieties; still when even this variety is associated with symptoms of general prostration or hemorrhage, it is by no means free from danger. With the apoplectic variety, which of itself is always exceedingly portending, are occasionally associated some symptoms that are of very serious import. Ushered in with pain in the stomach, this variety, in the estimation of Denman, is apt to be more fatal than where the head alone is affected. The most of the cases we have witnessed attended with this complication terminated fatally. There is something in the manner in which the fits succeed each other, that exercises an influence in the prognosis. The danger, we are told by Denman, is not increased by their frequent return so much as by their increasing violence. This is in accordance with our own observations. In two of our cases that recovered, the number of paroxysms

greatly exceeded those that died. Something is thought also to depend on the manner in which patients are attacked. Suddenly invaded, the patient is in more danger than where the disease consumes considerable time in the period of incubation. Dr. Dewees tells us that the most suddenly fatal case he ever saw had no symptons of premonition; without giving any warning, the patient cried out, "My head! my head!" and in a few hours expired. In one of the cases we have reported, the woman first commenced complaining of her head and stomach, and in a few hours afterwards died.

Mortality.—Incident to this affection, there is a degree of mortality which, in spite of all the resources of our art, is high. Of the seven cases we have reported, three terminated fatally, and another one was reduced to a state of confirmed idiotism. Of the eight reported by Dewees, two died; Lee reports fifty-four cases, eighteen of which died; Collins thirty, five of which died; Merriman forty-eight, eleven of which died; Ramsbotham twenty-six, ten of which died; Ingleby thirty-five, eleven of which died; Mauriceau forty-two, nineteen of which died. Thus of two hundred and fifty cases in all, seventy-nine, or nearly one-third, went to a fatal issue. A disease that destroys one in three or nearly so of all its victims, must be regarded as being of the deepest solicitude to every one having anything to do with the duties of an accoucheur Besides the direct mortality, it is quite likely there has been a number of the cases computed to have recovered that were left in a state of infirmity of some kind or other for life.

Treatment.—Considered with respect either to its difficulty or the trouble there often is in making a satisfactory diagnosis, the treatment of the complaint of which we have been speaking has been and will doubtless continue to be among those things in which physicians feel considerably embarrassed. In the absence of a perfect unanimity of sentiment among teachers touching the proper plan of treating any malady, the mass of the profession are thrown upon their own resources, and

each one is apt to regard his own individual experience as being the most worthy of confidence. To some extent, this has been the case with reference to the treatment of the disease we are considering. Nearly the same remedies are recommended by all the systematic writers to whom we have had access. With respect, however, to their relative importance, the extent to which their employment should be carried, and the conditions of the system most proper for their use, there seem to be different opinions. That all cases of this or any other complaint require the same remedies, is a position too gross to be the subject of a grave criticism. When the causes giving rise to the complaint, and other circumstances connected with the constitution, habits, etc. of the patient differ, of course we must look for a corresponding difference in the means of relief.

To the remedies which have the most reputation in the treatment of convulsions we will give a brief special consideration.

Bloodletting has by all authors had a prominent place assigned it as a remedy. A number urge its value with decided enthusiasm. "We must not" says Burns, "spare the lancet." He concludes all agree on this, and that "there is more danger in taking too little than too much blood." Denman regards it as "the first and most obvious remedy," and refers to his own experience and that of others, showing the necessity, at times, of very copious sanguineous evacuations. Dewees and Gooch also look upon bleeding as the sheet-anchor of the practitioner. That we are able to do more with the lancet than with any other single remedy, or perhaps with all others combined, is a position the truth of which will not be questioned at our hands. But that it is to be indiscriminately used, or that it is the remedy in all cases, is to us not in accordance with reason or experience. While, therefore, we regard it as being valuable in almost all cases, and as being in others that alone by which life is saved, we think that its employment should always be regulated by circumstances—the constitution of the patient, the violence of the convulsions,

the effects produced by the loss of blood, the cause giving rise to the malady, etc.

All females affected with the complaint before us are not alike as it regards their strength of constitution and the amount of blood their systems contain. In the first case reported in this paper, the woman was of strong constitution, had a large frame, had her muscular system well developed, and although she was forty-two years of age, her mode of living had done much towards hardening her physical powers and promoting general health. The convulsions in her case were very severe, and attended with an urgent set of symptoms. This case, taken altogether, was properly characterized for copious evacuations of blood. As a consequence, this woman lost in all between eighty and ninety ounces in the course of twenty-four hours, and, as it appeared, with the happiest effects. After the last bleeding, the fits subsided, and then she was delivered of a dead child, and had a rapid convalescence. The third case was that of a young female, who had been in the enjoyment of vigorous, robust health. She was of rather small stature, but inclined to corpulency, and in the sixth or seventh month of utero-gestation. Her convulsions were of the epileptic variety, and at each return they seemed to increase in violence. This is another case in which bleeding was indispensable—was the most powerful means at the command of the practitioner for preventing fatal lesions of the brain or preserving the life of the child. This woman was bled three times, and lost in all some thirty-five or forty ounces of blood, and although delivery by art was resorted to as necessary and proper under the circumstances, still I have no doubt that the woman's life was saved by the amount of blood she lost. These two cases exhibit the conditions of the system in which extensive depletion displays its best effects. Women of large stature, strong constitution, and plethoric habits, are indeed the only ones in which such extensive depletion as was practised in our first case can be made with impunity. Relied upon in such cases, either as a preventive of convulsions, or for the relief of the brain, or for the purpose of relaxing the

os uteri, it will display effects of which perhaps no other remedy with which we are acquainted is capable. Here we cordially agree with the remark of Burns, that "there is more danger in taking too little blood than too much." In an opposite state of the physical powers—where, for example, the woman has enjoyed delicate health, has been the subject of some disease which impaired the blood-manufacturing apparatus, or has had extensive hemorrhage—no one would think such extensive depletion either reasonable or efficacious. So feeble is the constitution of some women of small stature and delicate health, that it is impossible to draw much blood from them; and even if it were practicable, eighty or ninety ounces, instead of arresting the disease, might on the contrary destroy life.

Again, no small number of women at the present day are the subjects of dyspepsia, or some fault or other in the blood-manufacturing apparatus. Such labor under various disturbances from the limited quantity, defective quality, etc. of the blood. When these happen to be the subjects of convulsions, it may often be necessary to bleed once, twice, or thrice; but this should be done with great caution, lest a degree of prostration should be induced that might result in fatal consequences. Our fourth case was that of a lady of full powers of constitution. She was attacked with convulsions some twenty days after having been delivered of a healthy child. Afflicted with hemicrania, she was induced to take a dose of patent purgative pills; these produced hypercatharsis; convulsions followed, and she died. This woman was not bled at all. All the symptoms exhibited such a sinking of the powers of life, that bleeding was deemed inadmissible. An opiate was administered, and an epispastic applied to the nape of the neck.

There is another class of cases, which appear to be the result of great debility from hemorrhage. Here is a state of anemia that may either precede or follow delivery. Called to such a case, who would think of opening a vein as a remedy? To stop, indeed, the fatal waste of the vital fluid, and economize and husband the resources of the system, would seem to

be most rational, and this appears to be in accordance with what experience we have in these cases. Frictions over the hypogastric region, in order to promote contractions of the uterus, and thereby check the hemorrhage, have been found, we are told, to give prompt relief.

Local bleeding may be adopted in some cases—where, for example, the constitution and other conditions of the system forbid general. Delicate women, who have been bled from the arm without relieving the brain, may be benefited by cupping the temples and nape of the neck. Even here, however, strict regard should be had to the strength of the patient, the state of the circulation, etc., in order to avoid reducing the system to that extreme degree of debility from which a recovery could not reasonably be expected.

Opium is regarded by most writers and practitioners as being in most cases of questionable propriety. While some reject it altogether, others tell us that under certain circumstances it may be administered with advantage. Unless it is where the convulsions succeed delivery, or are the result of hemorrhage, or are obviously engrafted on a very delicate state of the system, it would probably be best not to administer any of the preparations of opium until the vessels have been emptied by venesection. Bleeding to the extent that the system will bear will not only render the administration of the drug more safe, but it will do much towards increasing its efficacy. Premised in this way by proper abstractions of blood, the administration of opium will in many cases be found to be of service in allaying uterine irritability when excessive, in mitigating the violence of false labor pains,* and in quieting tremors and

* In the year 1840, I was called to see a lady in labor, who was the mother of several children. The os uteri was rigid when the first examination was made, and resisted very much the process of dilatation. After it was somewhat opened, the head passed sufficiently to become impacted, and continued in this situation for some ten or twelve hours. During this time, the pains of labor were very severe, and the woman begged urgently for relief. Having been instructed to believe that opium under such circumstances would relieve or mitigate the severity of the pains, I commenced its administration in the form of laudanum of ordinary strength. The first dose produced no effect whatever, and I repeated it until in a

spasms. What the value of the article is in cases connected with hemorrhage, we have had no means of ascertaining; but from the fact that it has been found to be of service in hemorrhage connected with other pathological states of the system, we should think that in judicious hands it might be beneficial. There are some cases in which opium is inadmissible, and is calculated to do great injury. We allude to those in which the fits are evidently increasing in violence at each successive paroxysm, or are attended with profound coma, stertorous breathing, and other phenomena indicative of great cerebral congestion.

Emetics. When speaking of the etiology of this malady, we noticed that it was once in a while connected with gastric irritation from improper food, etc. Here it would seem that emetics might prove serviceable. In our second case, gastric irritation was present as the result of having eaten unripe fruit. Complaining of great pain in the stomach, the patient took an emetic in doses sufficient to empty the stomach. Although this measure did not arrest the fits, we have no doubt that by its influence they were considerably mitigated. Denman says: "I have not known any woman, who had frequent vomitings in the time of labor, fall into convulsions; nor do these often happen in difficult labors. But women will frequently have vomitings after they have been seized with convulsions, which afford some relief." Construed in the sense in which the author most likely intended, I suppose we are to understand the above remarks as being designed to suggest the importance of this class of articles, both in preventing and mitigating the fits. Capable of accomplishing either of these objects, any article should be entitled to consideration. Prevention, we all know, is better than cure, and mitigation, when nothing more can be accomplished, is always desirable. Discrimination, neverthe-

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period of ten hours I had administered half an ounce. The pains still continued to recur with regularity and with their former violence. From this experiment and some others that I have made, I conclude that opium possesses very little control over the true pains of labor. False pains it may arrest, and to these its usefulness, I suppose, is pretty much confined.

less, in reference to the cases in which emetics are used is indispensable. No physician would think of giving them in weak, relaxed conditions of the system, or where the convulsions are connected with hemorrhage, or under such circumstances as attended our fourth case, where the disease was apparently the result of the imprudent use of patent cathartic pills.

Cathartics no author omits to mention, and perhaps there is no practitioner experienced in the treatment of this disease, who has not witnessed indications requiring their employment, and, at times, decided utility as the result of their administration. As a general rule, the bowels, if not torpid at the commencement, generally become so when the cerebral disturbance is grave; in some instances it is impossible to move them with anything that can be used, until the fits are moderated or altogether checked. Still it is proper after venesection and other means have failed to procure relief, and where the bowels have not been moved during the progress of the complaint, to make a vigorous effort for the accomplishment of this object. Owing to the difficulty of getting patients to swallow while in the insensible state incident to the disease, it is necessary to use some article a small quantity of which if swallowed will answer the purpose. If not prompt in its effects, the cathartic should be invited to action by an enema.

We might go on to enumerate other remedies of which favorable mention has been made in particular cases—such, for example, as the warm bath, dashing cold water in the face, tickling the nostrils, camphor, etc.; but we have already bordered on prolixity, and shall therefore bring this part of our subject to a close, by merely suggesting the utility of counter-irritation in cases where other means have failed to remove the coma and restore the patient to a state of consciousness.

We now proceed to another element in the treatment of convulsions.

Delivery by Art.—In nothing pertaining to the practice of

midwifery is the accoucheur more frequently puzzled than in deciding in his own mind upon the circumstances proper for delivery by art. After he has used the lancet and its auxiliaries to the extent that he is warranted in doing, he still in some cases finds the convulsions continuing and perhaps increasing in violence. He knows that if this state of things continue, the issue must be disastrous—that both mother and child must inevitably perish;

> "With remorseless cruelty—
> Spoiled at once, both fruit and tree.
> The hapless babe before his birth
> Had burial, yet not laid in earth."

On the other hand, he knows that many mothers, but more children, have died while attempts were being made at delivery, or the mother afterwards, from the continuance of the convulsions. Embarrassed by such events, the practitioner is too often mortified with his inability to decide upon the proper course to be pursued. Notwithstanding these things, there must be a course which, however imperfect it may be, must be founded on the general experience of the profession in such cases, and the practitioner's own knowledge of the circumstances with which he is surrounded. In order to elaborate this matter a little, we will propose a question or two for consideration:

1. Is it proper, in cases of the sixth, seventh or eighth month of pregnancy, to attempt artificial delivery until there is evidence of the death of the child? In favor of the affirmative of this question no one perhaps can be found. It would be making a sacrifice of the child for at best an uncertainty, that of being able by such a course to save the life of the mother; for we know that it frequently happens that mothers die after delivery as well as before. It is true that in many instances the mother's chance of living would in all probability be increased by emptying the uterus of its contents. With nothing before us, however, but a probability that such would be the case, no individual would be justifiable in proceeding irrespective of a due regard to the life of the child. In cases of the character we are considering, the os uteri is either en-

tirely closed up or in process of dilatation. In the former condition, of course nothing can be done without sacrificing due respect to the child, nor without some considerable hazard to the mother. The exertion, indeed, necessary to dilate the os uteri must subject the woman to much additional suffering, and if the requisite violence which some cases require in order to produce dilatation be used, there could be but little prospect entertained of a recovery. When the parts are in progress of dilatation, interference is generally unnecessary, for a spontaneous expulsion of the fœtus will then most likely be the result. From such considerations, our question must be decided in the negative. Viewed in any or every aspect, this, we conclude, is the proper decision: and it is not more in accordance with our feelings than with what we believe to be the most enlightened system of practice.

Our next question is—

What are the circumstances which make delivery by art proper and justifiable? In reply to this, it may be stated—

1st. Where there is evidence, in a case of premature labor, that the child is dead and the os uteri open or easily dilatable, there is no propriety in waiting for the spontaneous expulsion of the fœtus. Whatever its agency may have been, while alive, in originating or keeping up the convulsions, one thing is obvious, that after its death, operating as a foreign body in the uterus, and imparting to the circulation of the mother a sudden change, there can be no propriety in permitting it to remain, but, on the other hand, many good reasons why its removal may put a stop to the fits.

2d. In cases of convulsions that take place at or about the full period of pregnancy, prompt delivery, when the parts are dilated or capable of being dilated, is one of the measures of relieving the fits upon which considerable reliance may be placed. When this is accomplished, it very often happens that the fits cease altogether. Besides the relief which usually accrues to the mother from this measure, it may be presumed that it often saves the life of the child, by removing it from a

situation in which it must have perished. Hence when convulsions happen to women who have gone the full period of gestation, it is no uncommon thing to save the child by delivery, when we are unable to save the mother. This was done in our fifth case.* Here the parts were in a favorable condition, and the woman had gone to full time; the forceps were applied when the tendency to convulsions was first noticed. Before, however, the child was delivered, the convulsion had made its advent. The woman died in the second convulsion, but the child was saved.

In concluding our remarks on the treatment of this malady, we submit the following positions:

1. Each case of the disease is likely to have some peculiarity, and therefore requires discrimination in regard to the selection of remedies.

2. Bloodletting is not only the most general remedy, applicable to almost all cases, but it is also the most valuable.

3. The extent to which depletion should be carried will depend not so much on the violence of the convulsions as upon the habit of body, strength of constitution, etc., of the patient.

4. Opium, emetics and cathartics have considerable value as auxiliaries.

5. Delivery by art is a measure of great value, but should never be performed without strict regard to both mother and child.

Jamestown, Ohio, February 10, 1847.

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* Dr. Winans introduced the forceps and delivered the child in this case. It happened that the fit came on before he had succeeded in applying the instrument, at which time he had an opportunity of observing the effect which it produced on the uterus. Instead of the regular contractions, the organ, he observed, fluttered around his hand, and had imperfect irregular contractions.

ART. II.—*Notes on Medical Matters and Medical Men in Paris.* By DAVID W. YANDELL, M.D., of Louisville, Ky

I spoke in a former communication of the use of some of the preparations of gold by M. Legrand. M. Ricord has been making, at the Hôpital du Midi, some experiments with gold associated with mercury, which, although too few to warrant any definite conclusions, still authorize the hope that it will one day become a highly useful remedy. M. Ricord believes that he has remarked in cases of constitutional syphilis, where he has administered the *chryso-hydrargyrique* pills, the symptoms yield more rapidly than under the mercury alone, without the supervention of any unpleasant accidents either to the mouth or digestive apparatus. He goes so far, indeed, as to insist that the gold, by its association with mercury, acts usefully as a prophylactic against salivation. The *modus operandi* of this amalgam is yet obscurely if at all known. On this subject there is a passage in a work published in 1757, entitled *Cours de Chimie de Lemery*, which, however, the able conductor of the Gazette des Hôpitaux pronounces purely hypothetical. Here is the passage: "Gold is a good remedy for those who have taken too much mercury, for these two metals readily unite with each other, and by this union or amalgamation the mercury is fixed and its progress interrupted. This is well seen in those who have received frictions of mercury, who, if they hold a piece of gold in their mouths for some time, find that it is whitened from the vapor of mercury." The Gazette thus comments upon this: "We have had very lately occasion to treat a patient who had been intensely salivated by a feeble dose of iodide of mercury. A piece of gold well polished was placed in the patient's mouth, where it was allowed to remain during more than half an hour; on being removed, its color was not in the slightest degree changed." Until more ample information is attained upon the subject, the mode in which gold acts, in the cure of disease and in preventing salivation, must remain a matter of

conjecture. The amalgam alluded to consists of fifteen parts of mercury to one of gold. The pills, containing from two to three grains of this, are given morning, noon and night.

M. Nélaton communicated, not long since, an extremely curious fact observed by himself in a young epileptic girl, and which, it has been remarked, is without a parallel in the records of medicine. The patient received a blow from a stone on the eye, which contusion was followed by the formation of a traumatic cataract. After the development of the cataract, she became the subject of epileptic fits. Each time that she felt these symptoms, and a few moments before their occurrence, she experienced in the eye a very perceptible pricking, a true *aura epileptica;* and it seemed to her that the general affection, which terminated in the epileptic fit, commenced at the eye. M. Nélaton extracted the crystaline body; the sight was restored to that eye, and the fits ceased. Afterwards, but a long time subsequently, as M. Nélaton has learned, the girl became the subject of mental aberration.

M. Jobert, of St. Louis Hospital, of whom I had occasion to speak in a former letter, makes frequent and successful application, in rheumatism, erysipelas and some other affections, of nitrate of silver in the form of an ointment, varying in strength from four and eight to twelve grammes of nitrate of silver to thirty grammes of lard. (A gramme is 15·444 grains Troy.) The following are a few of the cases in which this ointment was used with the most satisfactory results:

Observation first. A man forty-three years old wounded himself in the anterior part of the right leg, with a hatchet. The wound was suppurating at its edges and around them for some lines. The skin presented a manifest erysipelatous blush when M. Jobert saw the patient. The constitutional symptoms were general uneasiness, anorexia, full, hard and frequent pulse. Ordered lemonade, simple dressing to the wound, and application around its whole extent of the ointment of nitrate of silver. The next day the erysipelas had

invaded no other region; the local pain and general phenomena were somewhat diminished, but the patient passed a sleepless night, and complained of having felt a lively pain at the internal part of the thigh and groin of the wounded side. The day following, all the symptoms were detected which characterize lymphatic inflammation; the rose-colored bands, sinuous and multiplied at the internal part of the leg, and corresponding to the course of the lymphatic vessels; little erysipelatous wounds corresponding to the more superficial lymphatic ganglia here and there interrupted these lines or bands, and in the same points there was pain, and a cylindrical, fusiform tumefaction, corresponding to the vessels, or to the inflamed ganglia; and finally, the inguinal region of the same side presented many lymphatic ganglia, swollen, and painful upon pressure. M. Jobert ordered all the points which were either red, tumefied or painful, to be anointed with the pommade of nitrate of silver. The next morning, the 15th, the patient said he had passed a better night, and affirmed that the pain which he had felt was sensibly diminished; notwithstanding which, during the days following three other applications of the ointment were made, in order completely to subdue the inflammation and hasten the resolution of the engorged tissues. On the 20th, every complication had disappeared, the wound presented a healthy aspect, the appetite had returned, and the patient was able to be up a little every day. There was a small piece of skin cut by the blow of the hatchet, and left hanging by a slender pedicle, which, notwithstanding the erysipelas, was preserved, and ended by contracting adhesions; but the complete cicatrization of the wound was delayed some weeks longer, when the patient left the hospital perfectly restored, with the inguinal ganglia of the right side no more voluminous or sensible to pressure than those of the left.

Observation second. A laborer, æt. forty-eight years, whose right foot had been wounded, presented the following condition: considerable tumefaction, large collection of blood on its dorsal face, and two wounds, one situated at the base of the

third toe, the other near the external border of the foot, about two inches in front of the external malleolus. Emollient cataplasms were applied around the foot, which, in addition to venesection, were repeated the next day. On the 13th, the cataplasms were replaced by compresses saturated with camphorated brandy. On the 14th, an erysipelas occupied the dorsal surface of the foot, and had already invaded the inferior part of the leg. A single application of the nitrate of silver ointment sufficed to calm the pain and limit the erysipelas to the parts already mentioned. On the 18th, new symptoms were observed: on the skin of the internal part of the right leg red ribbons, sinuous, very painful to the touch, which gave the sensation of small cylindrical cords, appeared; the ganglia of the groin of the same side were swollen and painful upon pressure. There existed now very evidently in this patient inflammation of the lymphatics and inguinal glands. M. Jobert ordered the ointment of the nitrate of silver to be applied along the whole course of the lymphatic vessels, and upon the ganglia. On the 19th, the pain felt in the groin and thigh had diminished so much that the patient, deprived of sleep the night before, had been able during the last to repose many hours. The pain and swelling of the lymphatics continued rapidly to disappear until completely gone; but the ganglia, although wholly indolent, still preserved a volume a little greater than natural. Dec. 1st, the patient ate and slept well, his general condition very satisfactory. On the 2d, M. Jobert discovered upon the course of the lymphatics three small abscesses, the first situated below the internal malleolus, the second at the internal and inferior part of the leg, the third at the internal and inferior part of the thigh. The introduction of a bistoury was followed by the escape of phlegmonous pus. On the 3d, two other small abscesses were seen, which were similarly opened; one was situated at the internal and superior part of the leg, the other behind the internal condyle of the femur. These five wounds, resulting from the opening of as many little abscesses, were dressed simply. On the 13th, the two wounds on the back of the foot, produced by the accident,

were not yet cicatrized; on examination, it was perceived that the skin which separated them was coming away, and that there was already a fistulous communication. M. Jobert introduced a canula, incised the skin, and formed the two wounds into a single one. 19th. For some days the wound on the back of the foot is seen to be cicatrizing; this was favored by touching it with a pencil of nitrate of silver; simple dressing. As to the other small wounds, they are cicatrized; some are still covered with scabs. The lymphatic ganglia of the right groin remain slightly engorged, as is quite manifest to the touch. 27th. The dorsal face of the foot offers a completely continuous and solid cicatrix. The patient has commenced to get up and walk; but the various lesions that he suffered, and especially the repose upon bed that was enjoined, sufficiently explain the slight difficulty which he experiences in movements of the tibio-tarsal articulation of the right side—a difficulty which, without doubt, will disappear after sufficient exercise.

Independently of the interest attached to these two observations under the light of the treatment used, the inflammation of the lymphatics noticed in the subject of the second, presented a remarkable termination. We know that the first effect of inflammation of the lymphatic vessels is the coagulation of the lymph. Generally this lymphatic clot diminishes, is absorbed, and the vessel preserves its calibre. Sometimes the greater part of the fluid of the coagulum is absorbed, the solid part condenses itself in adhesions to the walls of the vessels, and thus obliterates them. At other times again, but more rarely, lymph accumulates at different points, distends the parietes of the vessels, coagulates and adheres there; then these coagula, instead of completely disappearing or of condensing themselves, soften from the centre to the circumference, and furnish pus. Thus result, at different points, and along the course of the lymphatic vessels, true abscesses of small size. We have seen, in the first case, that the patient arrived at the former of these terminations, which of all is the most common and happy; that is to say, that the coagula

were absorbed, the vessels preserved their calibre, and the lymph resumed its course. In the second case, on the contrary, the lymphatic inflammation terminated by numerous little abscesses, though the formation of the pus, preceded by adhesions of the clot, was followed by no grave accidents: in fact, pus when thus limited is unable to penetrate the current of the circulation.

Observation third. A man, after severe walking and excessive fatigue, was seized with pain in the tibio-tarsal articulation of the right side, and being taken to St. Louis Hospital, his case was pronounced arthritis, with considerable collection of serum about the joint. Anointments with pommade of nitrate of silver were ordered, and after being persisted in for three weeks, the patient left the hospital perfectly cured.

Observation fourth. A man entered the same service to be treated for lupus situated at the inferior part of the left leg. During his sojourn at the hospital he was attacked with a violent erysipelas, which rapidly extended over the leg, thigh and buttock of the side corresponding to the lupus. The nitrate of silver was applied by M. Moissenet; the invasion of the erysipelas was arrested, its extent limited, and speedily all the inflammatory symptoms completely disappeared.

Observation fifth. A young man was attacked, in March, 1846, with acute rheumatism of the right femoro-tibial articulation, the symptoms of which were so well marked that no doubt could be entertained of the nature of the affection. He was treated energetically by antiphlogistics, and then by sulphate of quinine; notwithstanding which, although the treatment was continued fifteen days, the disease did not terminate by resolution, and some days later the following phenomena were observed: The knee presented considerable tumefaction, and a sensibility so great that the slightest pressure produced the most acute pain; there was flexion of the leg upon the thigh, and the knee exhibited a manifest deformity; the superior extremity of the leg was carried outwards, and the skin was of a violet red. To the touch a sensation was imparted as of foreign bodies contained in the articulation in the midst

of a liquid; an exploring puncture proved this to be of a sero-sanguinolent nature.

A white swelling in its commencement was diagnosed, and treated by cauterization and vesicatories, without any amelioration of the symptoms. The nitrate of silver ointment was now used for about fifteen days, when the local symptoms were so greatly diminished that the patient got up and commenced walking without the use of crutches, and continued rapidly to improve until the articulation recovered its form, volume, and healthy movements.

M. Petzold, of Fohrenberg, in an article on the treatment of intermittent fever among very young children, suggests nothing which is not familiar to American physicians, save, probably, his formula for disguising the taste of quinine, which may be of some value:

℞. Clarified honey, 45 grammes;
Sulph. quinine, 75 centigrammes;
Aromatic sulphuric acid, dilute, 4 grammes.

Mix the ingredients thoroughly, of which a teaspoonful is to be given every two hours, shaking it previous to administration. Even this honey will still retain a little bitterness, though children usually take it without any great repugnance. For very young children, the sulphuric acid may be replaced by common water. One or even two teaspoonfuls should be administered every hour during both night and day to children of some size.

Remedy for Toothache.—To a hundred grammes of sulphuric ether, in which as large a quantity as possible of camphor has been dissolved, add two or three drops of ammonia; thus is obtained a camphorated ammoniacal ether, which, if applied to carious teeth, immediately relieves the pain. M. Cottereau, who is the author of the preparation, has used it in great numbers of cases with invariable success. The ether evaporates so rapidly that a layer of camphor is left in the dental cavity, which, although too light to incommode as a foreign body, is

sufficient to protect the denuded nerve from the air. Besides this, the ammonia acts as a cautery. The solution should be kept in a perfectly closed glass bottle.

Although M. Récamier published the result of some researches on hydatids of the liver as early as 1825, it is in an inaugural dissertation of M. Barrier that we find the complete history, and the establishment, after numerous facts, of the symptomatology, march and termination of this affection. An interesting case of opening of a hydatid cyst into the intestine occurred a short time since in the service of M. Vigla, at the Hôtel Dieu, a rapid and succinct analysis of which may not be out of place. A man 28 years old, of good constitution, lymphatic, has been troubled three or four times in the space of two years with very violent colic, from his description of which it seems much like bilious colic, each attack of which lasted from four to five days, and terminated without any other treatment except rest in bed, diet, and emollient applications to the abdomen. Fifteen days ago he had an attack more violent than any of the preceding, for which he entered the hospital, where the pains augmented in intensity during the early part of his stay, became more acute upon pressure, and were felt especially over the liver; while in the right hypochondriac region, and under the inferior border of the false ribs, a tolerrably voluminous, deeply seated and resisting tumor was observed, around which the abdominal parietes, although tense, were smooth and not sensibly elevated or distended by their contents. One morning, after a paroxysm of the most violent pains, the patient was seized with a copious diarrhœa, and almost immediately found himself relieved of all symptoms of disease. The matter which he had passed, preserved and presented at the visit, contained a great quantity of membranous pellicles, opaline, of different sizes, which on an attentive examination were soon recognised as hydatid remains. The next day and the day after, the colics were renewed, and each time followed and relieved by the expulsion of similar matter in large quantities, accompanied by a mucous diarrhœa.

In the space of three days, these accidents were repeated five times, and uniformly terminated in the same way. To-day the patient is in a satisfactory state, complaining of no more pain; the tension of the abdomen has diminished, and the deep-seated tumor, detected at first when the abdominal walls were depressed, is now no longer to be felt.

There had evidently been here a hydatid tumor of the liver, which discharged itself into the digestive tube. According to the light furnished by pathological anatomy and the results of post mortem examinations in analogous cases, we are forced to admit the existence of adhesions which were formed between the walls of the cyst and those of the intestine; which leads to the inquiry, to what part of the intestine were these adhesions formed, and into what part of the digestive tube did the tumor open? It is possible for this to be either in the large or small intestines, and the transverse portion of the colon is but a small distance farther from the liver than the duodenum. As a characteristic symptom, there is nothing to determine the diagnosis, while at the same time there are circumstances which militate in favor of the one opinion rather than the other. In considering the relations of the small intestine with the liver, we see that it was that portion of the intestine which corresponds to the point of the liver towards which the cyst had a tendency to transport itself—that is to say, the anterior and inferior portion. But the circumstance which induces us more readily to believe the opening of the cyst was into the duodenum is, that during the progress of the case entire hydatids were never met with in the stools, but only the remains of hydatid membranes. Now, cysts of this nature contain most frequently a greater or less number of these acephalocysts of every size; and if the cyst had opened into the colon, it would have been almost impossible for some of the least voluminous hydatids not to have passed entire with the discharges; whereas the length of the passage they were obliged to make, if the tumor opened into the duodenum, and the commencement of digestion, mixed with the chyme, the trituration to which the hydatids in the small intestine were necessarily

submitted, sufficiently explain the state of disorganization in which they were discharged. The patient is now (December 28th) in a satisfactory condition—a result hardly to have been expected, for, as remarked by M. Barrier, the issue of such cases is most frequently in death. The treatment must of necessity be simply palliative.

M. Briquet, in the treatment of chlorosis, uses sulphate of iron, because of its solubility, in preference to the subcarbonate of the same substance. The following is his method of administering the remedy: Sulphate of iron 1 gramme, distilled water 180 grammes; m. et f. dissolve s. a. Of this the dose is a tablespoonful morning and evening. Each spoonful contains seven centigrammes or about one grain and a half of the salt of iron. The above quantity of the solution is sufficient for daily administration for the space of a week. As to the subcarbonate, much larger doses of that may be administered; two grammes and upwards have been given without any unpleasant effects.

Dr. Guérard has been in the habit of employing with great success, in the chronic diarrhœas which accompany phthisis or enteritis, and which succeed typhoid fever, injections of the following: Common water 1 litre (about a quart English), nitrate of silver 50 centigrammes. Previous to adding the salt to the measure of water, it is easier to dissolve it in a small quantity of distilled water. The patient may without the slightest inconvenience retain or discharge the injection that has been administered, the effect of the argentic salt being the same in either case. M. Guérard has had no occasion to deplore unpleasant accidents from its use.

I promised, in my communication by the steamer of the 5th of January, that at a future time I would complete the history of the case at the Hôtel Dieu, in which ligation of the femoral artery was practised by M. Roux, for a tumor situated at the head of the tibia, soon after which hemorrhage supervened

and the man died. The post mortem revelations, which exhibit an error in the diagnosis of the distinguished surgeon, and the correctness of the Gazette des Hôpitaux in its criticisms on the case, are as follows;—prèvious to giving which, however, I will briefly describe the condition of the patient up to the time of his death:

The operation was performed on the 19th of November, four days after which the first dressings were removed, when the condition of the patient was most satisfactory, the numbness which was so disagreeable at first being almost gone, and the temperature of the member nearly that of the healthy limb. Sixteen days after the ligature was applied a very considerable hemorrhage occurred, which was partially arrested by one of the hospital pupils until M. Roux arrived, who, considering the extreme feebleness of the patient from the loss of blood, and his unwillingness to submit to another operation, as well as for other reasons, contented himself with simply ligaturing the free extremity of the artery a few lines above the point of section, instead of, as might have been done under other circumstances, enlarging the opening in order to apply a ligature beyond the point where the arterial tissues were inflamed. Unhappily, while ligaturing the artery, a large venous trunk was wounded, which circumstance, in conjunction, perhaps, with the evil condition to which the patient had been brought by the loss of blood, developed a phlebitis, a purulent diathesis, and the patient died on the morning of the 11th of December.

At the autopsy, abscesses were found in the spleen and liver, pus existed in the right femoro-tibial articulation, and the tibia itself was so profoundly altered that a quick jerk was sufficient to fracture it. The arterial extremity was still well clasped by the last ligature, and no traces of a second hemorrhage were observable. A section of the tibia perpendicular to its length, made on a level with the superior layers of the bone, showed a healthy osseous tissue; but a longitudinal section revealed a degeneration evidently encephaloid, presenting here and there gelatinous-like points, having destroyed the

compact lamellæ of the bone, and constituting the two tumors, or rather the bi-lobed tumor of which I spoke, and in which were felt, before the operation, beats synchronous with the pulsations of the heart. The cartilages at the articulation of the knee had not undergone any alterations of a grave or important character.

This case, evidently beyond the resources of art, affords me an opportunity of giving the four forms of *cancer of the bones* distinguished by M. Nélaton, in doing which, you will not consider me as attempting didactic pathology, but as simply endeavoring, by translating the remarks of one of the latest and most distinguished writers on this subject, to throw light upon a point so difficult and obscure, that a surgeon whose merits no one will question was himself guilty of an error in diagnosis.

1st. In the first form, within the interior itself of the osseous tissue, nuclei of cancerous matter or tissue are found, in cavities which they exactly fill; the tissue of the bone has completely disappeared at the points invaded by the accidental growth, and there is a loss of osseous substance both in its spongy and compact portion, while in the neighborhood of this loss the bone appears to have undergone no alteration, and scarcely more vascularity is remarked than is observed in the normal state of the bone. In proportion as the disease progresses, the cancerous mass becomes developed, and forms a prominence more or less considerable on the surface of the bone, which, I may note, was the case in the patient at the Hôtel Dieu. If the production occupies a long bone and corresponds to its diaphysis, it is not uncommon to see the cancerous growth extend towards the medullary canal, whose membrane offers no resistance, and thus form a tumor which mounts into the interior much higher than its seat or volume would lead one to suppose—a disposition which it is important to bear in mind in cases where it is desirable to resort to amputation of the limb.

2d. In the second form, which is allied more especially to the *osteo-sarcoma* of authors, the tissue of the bone has suffered a profound modification, and generally presents a voluminous

tumor, a section of which exposes a great number of cellules, very irregular both in form and dimensions, filled with cancerous matter in different stages of softening, while there seems also to be a tenuity of the osseous tissue in the cellules of which the cancerous matter is deposited.

3d. The third form is that in which a cancerous mass commences in the interior of a bone, develops itself by little and little, and pressing eccentrically the osseous matter, which yields in a slow and gradual manner, becoming thinner and thinner until at length it presents only a very friable shell, in which is contained the cancerous matter; this is the *spina ventosa* of writers. In this variety, when the tumor is sufficiently voluminous, the shell becomes perforated, the cancerous matter escapes by the aperture, forms a prominence under the skin, and goes on like other cancers.

4th. The tumor is attached to the exterior of the bone, covered by periosteum, and has been called *fungous tumor of the periosteum;* though it is easy to see that the osseous tissue is itself altered; in fact, a collection of osseous prolongations extremely fine and flexible are found, which may be compared to hair implanted on the surface of the bone. These points or prolongations are united in the form of a wick or cord, in the intervals and on the surface of which the cancerous matter is deposited.

One sees, adds M. Nélaton, that widely marked differences exist between these forms of cancer of the bones, while at the same time they exhibit the characters proper to cancerous affections. Thus, whatever may be its original form, the tumor constantly increases, softens, ulcerates, almost always reproduces itself after removal, and eventually produces the cancerous cachexia.

An important remark to be made relative to these tumors is, that they never attack the cartilaginous tissue, and that when the cancer has commenced near the articular extremity of a bone, the diarthrodial cartilage is always found untouched, notwithstanding the complete degeneration of the epiphysis which supported it. Whenever the cancerous growth extends

into the articulation, it is by a point where the bone is covered only by periosteum and the synovial membrane.

I have very much abridged the anatomical history of this disease of the bones, and will close with a few remarks on the progress and symptomatology of these tumors. They may show themselves without having been preceded or accompanied by pain; all that occurs, probably, being that at the moment of their development the patient may experience acute but transient pains, perhaps spontaneous, sometimes following fatigue or a sudden movement. Nothing is determined as regards their progress, which at times is slow, and again remarkably rapid. Finally, and this should render one reserved in the exact diagnosis, it must not be forgotten that certain cancers of the bones present beats synchronous with the arterial pulsations—beats which do not consist in a simple rising, but in a true expansive movement, such as is met with in aneurismal tumors. The ear often detects a *bruit de souffle*, less distinct, however, than that of aneurismal tumors; this *bruit de souffle* is not constant, and in the case just related in the service of M. Roux it did not exist. As a differential diagnosis, one will note, when he has been able to observe these tumors from their commencement, that pulsations are felt in aneurisms from the beginning, whereas in cancers they are perceived only at a period when the accidental tissue has become very vascular—that is to say, at an advanced period of their formation.

At the Hospital St. Louis, in July last, there was a case of inguinal hernia reduced spontaneously by the application of a cataplasm. As the case is a singular one, I have thought it sufficiently interesting to translate from the report contained in one of the recent numbers of the Gazette des Hôpitaux:

On the 2d of July, 1846, a man aged 51 years, a shoemaker, of good and robust constitution, entered the wards of M. Malgaigne, having a hernia of the left side, of three years' standing, which had increased gradually and insensibly in volume from the size of a billiard ball to that of a man's fist; it was

seated in the groin at first, but finally extended into the scrotum. The hernia returned easily, but escaped upon the least exertion; a bandage was applied, but the patient neglected to wear it constantly, and in the end left it off altogether. Neither of the parents of the patient has had a hernia; one of his brothers has; the patient himself has labored under a cough for four years, to which cause he ascribes the development of the hernia. Tuesday, 30th June, while coughing, the hernia escaped; this time the attempts of the patient to return it were unavailing; he had severe attacks of colic during the nights of Tuesday and Wednesday, and vomited at three different times, at first food, afterwards a greenish colored liquid. Wednesday morning the patient succeeded in effecting a reduction of the tumor; several times during the day his bowels were moved; the condition of things continued so pleasant that he resumed his work without applying the bandage, which was old, worn out and useless. Thursday at 2 o'clock, while going down stairs, the hernia again made its appearance, accompanied by severe pains in the belly, similar to those felt on Tuesday, but without vomiting. All attempts at reduction were ineffectual; the patient had been to stool in the morning; he had breakfasted at 10 o'clock, but was unable to take any more food during the day; at 5, p. m. he entered the hospital, when an inguinal hernia of the left side, which appeared to be strangulated, was observed. Ordered a warm bath, during which taxis was practised by the interne without success, after which a purgative injection was prescribed.

M. Malgaigne being sent for arrived at 10 o'clock in the evening, and detected the following state of things: A pyriform tumor, of the size of the fist, occupying the left side and descending into the scrotum, whose largest extremity was below the smaller or contracted portion looking towards the inguinal ring; the skin which covered it was warm, smooth, shining, much distended, and slightly red in the part occupied by the sack; the tumor was painful on pressure, hard, resisting, and very heavy; perfectly dull; projected forwards so as to displace the penis towards the right side; surface uniform;

its pedicle or constricted part seemed like a very hard cord of the size of three fingers, occupying the inguinal canal. The hernia was very distinct from the testicle, which occupied the lower part of the scrotum; it was separated from this organ by a furrow or contraction situated at the distance of two fingers' breadth from the base of the tumor. The abdomen was but slightly painful on pressure, except towards the left half, in the iliac fossa and the flank of the same side. No vomiting or disposition to vomit; patient calm; pulse regular, 76; taxis painful and ineffectual; and the injection, although half an hour had elapsed since its administration, had produced no effect. A large cushion was applied under the hams of the patient, which maintained the thighs flexed upon the pelvis; the tumor was covered by a cataplasm, which was soon followed by marked relief; the patient falling asleep and remaining so until 5 o'clock in the morning, when, awaking, he put his hand upon his groin, and was greatly astonished to find the hernia gone; it had returned entirely through the influence of the cataplasm, which proves the existence of an inflamed hernia.

The reduction was in fact complete; in the forenoon the patient had an abundant stool; and the next day he left the hospital, provided with a bandage. This fact exemplifies in a very striking manner the happy results sometimes obtained, in the most embarrassing cases, by the administration of the simplest remedies, after more active and rational methods have completely failed.

Some weeks ago, in the wards of M. Louis, at the Hôtel Dieu, there was a girl 18 years old, who about a month and a half previously had been delivered of an infant at full term; nothing peculiar was observed during or after the accouchement; the milk fever had been regular in force and duration; on the sixth day after her entrance into the hospital, intense febrile phenomena supervened, accompanied by pains in the hypogastric region, which yielded to the application of some leeches. The fever showed itself again in two days, associ-

ated with pains in the abdomen so severe as to draw cries from the patient. These had commenced at midnight the night before; they were greatly increased by pressure, and accompanied by liquid stools, vomiting and extreme pallor of the face; notwithstanding which, M. Louis contented himself with prescribing sinapisms to the lower extremities, and two laudanum injections of fifteen drops each. In half an hour after the visit, in addition to the colics, she suffered with pains commencing at the stomach and extending even to the throat, producing partial suffocation; considerable dyspnœa was experienced, attended by extreme anxiety, and cadaverous hue of the face; the eyes were haggard; movements at times disordered. It was evident that nervous symptoms were present, but arising from a cause which it was at the moment impossible to point out.

M. Louis found the condition of the patient the same the day following, and merely added to the former prescription an antispasmodic. At six o'clock in the evening, a total change had occurred: all the alarming phenomena had disappeared; very little colic remained; respiration sufficiently free; pressure on the belly unaccompanied by pain; no tympanitis; no increase in the volume of the uterus; little fever; and the day after, the patient had appetite for food, desired to get up, and, save the excessive pallor of the face which still continued, her condition was quite satisfactory. The next day and the day after passed without a renewal of the attacks; respiration still unembarrassed; the only phenomena remaining being considerable debility and extreme paleness.

What has been the nature of this apparently formidable but transient affection? The symptoms present indicated an extremely acute peritonitis arising from an intestinal perforation, but there are many reasons which will cause this opinion to be repudiated: In the first place, extreme difficulty of respiration was observed, which is not usually found in these inflammations of the peritoneum; and, what is of still more importance, the termination of the affection, the rapid disappearance of the phenomena, establish conclusively that there was no peritoni-

tis. For the same reasons, there could have been no metritis in the case; added to which it may be remarked that inflammation of the uterus never comes on so suddenly and with so alarming an assemblage of symptoms. Was it an attack of hysteria of a peculiar nature? It is still difficult to admit this. In cases of this description, it is imprudent to give an immediate opinion, as M. Louis showed by reserving his until the following day, when, seeing that the suffocation and pains in the abdomen had entirely ceased, he concluded that all the symptoms were purely nervous, and had been produced by the presence of a clot formed suddenly, from some unknown cause, in one of the ventricles of the heart, which had given rise to considerable embarrassment in the circulation, and afterwards in the general innervation of the economy; the clot having soon become dissolved or absorbed, the crisis had completely passed over, not to be reproduced.

About the same time, phenomena similar to those just detailed were observed in the wards of M. Rostan, in the case of a young woman who was not in the puerperal condition like the former, but who, while enjoying the most perfect health, felt herself so violently oppressed, that, to use her own words, "she thought she could not live an hour." At the same time that she was a prey to this sense of suffocation, the most distressing pains in the abdomen and chest were experienced, those in the precordial region being most severe. The first attacks came on three weeks ago, since which time the same symptoms have repeatedly shown themselves, and during the intervals—that is, during the moments of calm—the pulse is so small and threadlike that it can hardly be felt at the wrists. The abdominal and precordial pains persist, though less severe; auscultation of the chest reveals a normal vesicular respiration, while the pulsations of the heart are dull, deep, difficult to distinguish clearly, joined to a *bruit de souffle* which predominates over the respiratory sound; marked dullness from the third to the seventh rib upon percussion, except which, all the functions are properly executed; there being no marked thirst, cephalalgia, heat of the skin, or sweatings: appetite and diges-

tion good; stools healthy; the menstrual flow has not appeared for three months.

Concerning this patient M. Rostan made the following observations: It is clear that this was an acute malady, seated, where? All the indications show that it was in the heart or its envelops; but was it a pericarditis, or an inflammation of the heart itself? The professor is inclined to the latter opinion; but it is nevertheless proper to remark, that carditis alone does not explain all the phenomena observed; there must have been something else, which is found in inflammation of the internal membrane, designated by Broussais *internal carditis*, and by late writers *endocarditis*, which induced the formation of sanguine clots and their retention in the cavities of the heart. The enormous extent of the dullness in the precordial region would lead to the belief that there was also, perhaps, pericarditis with serous effusion. Following this diagnosis, the treatment should be antiphlogistic, which in fact was the case; the patient has been twice bled, and cups have been applied over the region of the heart; and under this plan a prompt and sensible amelioration has resulted.

In cases of this description, the advantages of sanguine depletion are numerous. When the pulse is of that reduced size already alluded to, bleeding develops it by dissipating the inflammation; while another effect is the diminution of the plasticity of the blood, in consequence of which the tendency to the formation of clots is greatly lessened, and if already formed, it diminishes their chances to augment in volume.

It is to be remarked that although these two cases are not without certain analogies, still there is a very great difference between them. In that of Louis, the brief duration of the symptoms forbids the supposition, that the clot could have formed in the heart in consequence of an inflammation of the substance of the organ. What then could have been the determining cause of this coagulation of the blood? Evidently it is beyond our power to say in a positive manner, though, since it is reduced to hypothesis, there is nothing to hinder the search for the cause of the phenomena in the nervous system.

If nervous congestions are admitted to be possible, and to be capable of being the cause of real disorders, who will oppose, in a case of this kind, our ascribing to a disturbance of the general innervation a disorder, of which the occasional cause escapes our notice, viz., the formation of a clot in one of the ventricles of the heart?

I pass to the third case, the subject of which was a woman aged 18 years, a milliner, who had been constipated for some days, without either much pain in the abdomen, sensibility on pressure, rumbling of the intestines—in a word, without anything which indicated a typhoid state. The respiratory murmur was normal throughout the lung, save at the right side, where, in a limited point, a light *bruit de souffle*, perhaps physiological, was detected; the sensibility of the abdomen was obtuse, which is explained by the obstinate constipation, dating now eight days, at which time her menstrual discharge being present, was suddenly checked after exposure to cold, which is the only cause the patient is able to assign for her affection; intense cephalalgia is the only phenomenon on the part of the nervous system; dullness of the heart in its normal limits; pulsations strong; the first sound accompanied by a distinct *souffle;* pulse from 104 to 108. Venesection to four hundred grammes.

The next day M. Rostan saw the patient, and adopting the ideas of his *chef de clinique*, (who had ordered the first bleeding,) relative to a probable inflammation of the heart, prescribed another venesection, which furnished a clot with a firm, thick, buffy coat; cups were applied in the evening; the *bruit de souffle* had diminished perceptibly under the influence of the general and local depletion, each of which had been practised three times in four days, and at the end of five days no traces of the *bruit de souffle* remained. Rostan thinks there was in this case clearly an inflammation of the internal membrane of the heart, perhaps of the tissue itself of the organ, supervening without any appreciable cause, and neither accompanied, as in the preceding cases, by the formation of

clots, nor by that reduction of the pulse so remarkable in the second, and so characteristic of it.

A case of inflammation of the subcutaneous cellular tissue of the right leg occurred in the wards of M. Gerdy, at La Charité Hospital, a few days ago, which was successfully treated by simply elevating the member, a brief outline of which I believe will be found interesting. The patient was a young man of a good constitution, who presented, at the time of his admission into the hospital, a commencing phlegmon which as yet offered no appreciable fluctuation; the skin was red and hot; the tumor was quite prominent, and, without doubt, was produced by an inflammation of the subcutaneous cellular tissue; already it involved a large portion of the right leg. M. Gerdy placed the affected limb in such a position that the foot was considerably elevated above the plane of the pelvis, and under this treatment alone in a short time the inflammatory action diminished in intensity, the redness and heat became less, resolution was effected rapidly, and a complete recovery resulted.

Dr. Rayer, of whom I spoke in a previous letter, has been in the habit of using, with most satisfactory results, the oil of croton tiglium in frictions on the anterior surface of the thoracic cavity, in those persons who were laboring under pulmonary tuberculization. According to this able practitioner, twenty-four drops of the oil may be used for each friction with impunity. It is used by pouring a little at a time on the chest, and then rubbing it with the naked palm of the hand; this is followed, as is well known, by the development of pimples or buttons on the breast, which the hand escapes, owing, perhaps, to the absence of follicles and the greater thickness of the epidermis on its palmar portion. The employment of the croton oil in this way and in this quantity affords notable relief to the dyspnœa, the nocturnal agitation, and the fever which so cruelly torment patients of this kind; and it is to be regretted that the high price of the article places it be-

yond the reach of the indigent, and must seriously limit its application in such affections.

Here I may mention that a medical friend from New York, now in Paris, has assured me that, during the last four or five years, he has applied the croton oil in frictions to the anterior and superior surface of his chest whenever he has been troubled with a cold which affected especially the bronchia, and that it has always afforded relief within twenty-four hours. He thinks the pustules form more readily if the part has previously been washed well with warm water, and afterwards rubbed with a rag saturated with spirits of camphor. Previously to commencing frictions with the oil, which he usually does in the evening before going to bed, he takes care to place a handkerchief between the thorax and his under-shirt, in order to prevent the latter from becoming soiled when the pustules break.

Dr. Rognetta says that he cannot too highly recommend in smallpox the application of mercurial ointment, solidified by the aid of starch or flour, which he renews once or twice during the day. A thick layer of the pommade is spread with the finger on the forehead, cheeks, lips, eyes, nose, ears, etc. The buttons are aborted in these regions, the eyes are perfectly preserved; the face, nose and lips do not experience that horrible and acutely painful swelling which belongs to confluent variola, and the patients feel themselves refreshed by each application of the mercurial ointment; in a word, it is positive that this agent is really a precious remedy, not only as a preservative against cicatrices, but, what is still more useful, as a true safeguard to the eyes, and a preventive of the distressing pains of which the patients complain so much. These results have been proved by M. Rognetta in the wards of M. Briquet at La Charité; besides which he advises bloodletting in adults in smallpox, adding that he has seen venesection practised in the hospitals in Italy, especially at the commencement of the affection, not only once, but four, five, and even six times, with the happiest effects. If the termination

of the disease is fatal, it is because of the disease itself, and not the bleeding. He treats the fear of purulent absorption as a mere vagary, and considers that abstraction of blood cannot but facilitate the march of the eruption. Of course among children the use of the lancet is inadmissible.

M. Pelouze, at a late meeting of the Academy of Sciences, made some remarks concerning a letter of Prof. Liebig relative to certain new researches in animal chemistry. M. Liebig, after washing large quantities of hashed meat and collecting the water used in the operation, has detected in the muscular flesh the constant presence of an acid which was first discovered in milk, and hence called lactic acid; this acid thus spread through the flesh is separated from the blood only by fine and permeable membranes. Prof. Liebig finds in the approximation of this acid and the alkaline principle of the blood the previous cause of the electrical currents discovered in the muscles by M. Matteucci. While performing these delicate manipulations, Liebig has met with a substance, the knowledge of which is due to M. Chevreul, and which he designates by the name of *creantine.* It is found in very small quantities, but its existence is constant. It has been detected in the flesh of the ox, calf, sheep, hog, horse, hare, fowl, and pike fish. Is it to the creantine that the soup of meat owes the nutritive qualities which are possessed by soups obtained from no other parts of the animal organization but the muscles. Liebig considers that it is the creantine which plays the most important part in the living economy.

M. Pellerin has just communicated some new and striking views respecting sea-sickness. He maintains that the opinions that attribute this affection to a congestion of the brain, and to a disturbance in the abdominal viscera produced by the motion of the vessel, are alike groundless. According to M. Pellerin, the heaving and rolling of a vessel produce a derangement in the circulation, which causes sea-sickness; the result of this derangement is not, as is stated by Wollaston, a congestion

of the brain, but, on the contrary, this organ is deprived of that amount of blood necessary for its stimulation. The sensations of sea-sickness are much like those experienced when a patient has been bled to the point of syncope. In support of his view of the pathology of this affection, M. Pellerin mentions, what every one who has been sea-sick knows, that its violence is greatly lessened by assuming the horizontal position, a circumstance which, I need hardly say, is witnessed also in cases of syncope. In pregnant women, the uterus requiring a larger amount of blood than under other circumstances, the brain is deprived of a portion of that which it ordinarily receives, and thus nausea is produced, between which and the sensations of sea-sickness Mons. P. draws an analogy, strongly supported by the fact, that the nausea of pregnancy is rare while the female is lying in bed, but is frequently felt when she gets up. Adopting this as the correct opinion in relation to sea-sickness, the remedies should be everything calculated to determine blood to the head, such as belts around the body, etc. He further suggests that persons who are troubled with a tendency to a flow of blood to the head should try sea-sickness as a remedy; and certainly, if he is right in his theory, his suggestion is not unsupported by reason.

Knowing that the journals, medical and political, abound in accounts of the use of vapor of ether, I content myself with simply saying, that the evidences in its favor are so irresistible, that no observer can withstand the conviction of the powers attributed to it by American and English surgeons; and that where there was at first the most unscientific opposition to its use, there is now the utmost eagerness to promulgate its, I may say, blessed properties. From a Paris English paper I clip the following extract, containing the statement of M. Gerdy, made before the Academy of Sciences at its last meeting, relative to the effects of the inhalation upon himself:

After stating that he inhaled the ether through the tube of a bottle containing about three pints, he says: "The irritation which I felt at first in the throat made me cough; but being

resolved to resist, I soon triumphed over this little obstacle. The irritation and cough gave way as the inhalation continued. I next experienced a numbness of the head, attended with heat, as if the vapor of alcoholic and intoxicating liquor was mounting to the brain. This numbness extended rapidly first to the feet, and then to the legs and arms, and next to the loins, and increased rapidly with each inspiration. In the organs of sensation it was attended with an agreeable feeling of heat, and of a vibration similar to that which we experience in touching a vibrating body, such, for instance, as a large bell when struck by its hammer. When these two sensations reached their maximum, I experienced an impression both agreeable and voluptuous, like that of intoxication. It is the numbness of which I speak that diminishes the pain in operations. My sight was not sensibly benumbed; the hearing was more so, and it became more and more feeble as the intoxication increased. I convinced myself, however, that the smell, the taste, and the touch, properly speaking, were not paralyzed by the general numbness which came over me; but my eyelids became heavy, and I felt a desire to give myself up to the charms of my intoxication."

Liston and Ferguson, of London, have employed the vapor preparatory to their operations with most decided success, several of their patients having been wholly unconscious of pain.

A correction.—In my last letter (pages 229, '30, March number of this Journal.) I was betrayed into an error by an incorrect report of Béhrier's lecture on *smallpox.* I find the error corrected in another report of the lecture. For "variola," "varioloid" should be substituted, and the sentence will then read, You very rarely find umbilical pustules in varioloid.

Paris, January 26, 1847.

ART. III.—*A Case of Poisoning by the Seeds of the Datura Stramonium.* By Dr. D. G. GREGORY, of Rutersville, Texas.

On the morning of the 15th of August last, before I had risen from bed, Mr. H. was at my door requesting me to visit his negro man, who, he said, was laboring under the effects of poison. When I arrived at his house, I found the man in the following condition: Skin a little below the natural temperature, pulse slow and somewhat intermittent, pupils dilated, breathing difficult; patient said he could not distinguish a man from a horse at a distance of twenty paces. I gave him a dose of olive oil, ordered the pediluvium, put a blister on his stomach, and gave him warm brandy toddy. The symptoms soon changed for the better, and he improved in appearance until about 6 o'clock, p. m., when I was hastily summoned to the patient again. His symptoms now had assumed the most alarming character, and it was with the utmost difficulty that I succeeded, by the use of strong stimulants and rubifacients, in restoring the natural warmth. This, however, was done, and being kept up until the next day, the patient was so far restored that no more medicine was required, and he soon recovered.

The history of the case, as related by the patient and his master, was as follows: A few months previously he had been seriously injured in one of his testicles by the falling of a tree, for which he was attended by a physician in the neighborhood, who, called into the service of the United States, left his patient not entirely well. The patient had been told by some travelers that the Jamestown weed would cure him, and they advised him to use the seeds. Accordingly he ate a quantity in the evening, and next morning was taken sick; his master, supposing it was an attack of fever, sent a messenger for a physician, but soon discovered symptoms of poisoning, and commenced giving ipecac. and castor oil largely. Some peculiarities marked the first symptoms: at breakfast he was given a cup of coffee, around which he danced and frolicked until he spilled the coffee and broke the cup. He was next

went to the field to gather and shell a sack of corn; he pulled the corn and placed it in a pile, around which he jumped and danced until he became insensible and began to froth at the mouth and nose. The vomiting and purging had been kept up until I saw him, during which time he discharged a great many seeds.

I learned, about two months ago, that the disease of the testicle had got entirely well. Was it the stramonium that cured him?

Rutersville, Texas, February 15, 1847.

ART. IV.—*A Case of Spontaneous Combustion.* Communicated to Prof. Yandell, by THOMAS S. FOSTER, Student of Medicine in the University of Louisville.

SIR: Your remarks on spontaneous combustion brought to my memory a case which occurred in Shelby county not many weeks since, and which excited much remark in the neigborhood. The particulars were as follows: A negro man seventy years old, who had been a hard drinker for fifty years, was found on his bed, one morning in September, partly consumed by fire. His body was charred, and looked like a lump of coal, while his extremities were untouched, and the bed and bedclothes but little burned. A woman, who slept in an adjoining room, heard no noise in the night, and found him in the condition just described when she entered his room in the morning. If there was a fire in his room at all, it was a small one, as the weather was mild at the time. From all the circumstances attending it, I suppose this may be set down as a case of *spontaneous combustion* in the human subject.

November, 1846.

BIBLIOGRAPHICAL NOTICES.

ART. V.—*Materia Medica and Therapeutics; including the Preparations of the Pharmacopœias of London, Edinburgh, Dublin and of the United States: with many New Medicines.* By J. FORBES ROYLE, M.D., F.R.S., Late of the Medical Staff of the Bengal Army; Member of the Medical and Chirurgical Society of London: of the Medical and Physical Society of Calcutta; and of the Royal Medical Society of Edinburgh, etc.: Professor of Materia Medica and Therapeutics, King's College, London. Edited by JOSEPH CARSON, M.D., Professor of Materia Medica in the Philadelphia College of Pharmacy; Member of the American Philosophical Society, etc. etc.: With ninety-eight Illustrations. pp. 690. Philadelphia: Lea and Blanchard. 1847.

This is a neat, well executed volume of nearly seven hundred pages, with a full index, and presents a condensed view of Materia Medica. As a text-book for students it strikes us as being just the volume wanted in this country. Pereira is too voluminous for this class of readers, and no work now occurs to us as so well adapted to their wants as the one the title of which stands at the head of this article.

The author has adopted the natural history arrangement, in preference to the one which classifies medicines according to their operation. We do not conceive that this is the best; we should prefer the physiological arrangement, as giving at one view all the articles fitted to fulfil the same indication. But the objection which might have been raised to his work on this account the author has obviated, by giving at the end of the volume a list of all the medicines noticed in it, arranged with reference to their therapeutical effects. By referring to these tables the student may soon fix in his mind the remedies belonging to the same class.

The volume opens with definitions such as the student needs at the threshhold of his studies, and this is followed by remarks on operations of pharmacy, which will be found

highly useful to the beginner. Taking up first the articles belonging to the inorganic kingdom, atmospheric air receives a brief consideration, and then follow oxygen, nitrogen, hydrogen, water, sulphur, etc. In connection with sulphur, sulphuric acid is described, and all that relates to its production and properties is presented in the narrowest practicable limits. The author has been able to carry his condensation farther, by adopting symbols and abbreviations. Thus, for sulphuric acid, he gives S′ or $SO^3 = 40$, which tells its composition and combining number; and in referring to it afterwards he uses S′ or Sul′ instead of writing out the word in full. In like manner N′ or nitric′, stands for nitric acid, and carb′ for carbonic acid, and so on. This is an excellent innovation, by which time is saved, and the size of the volume has been kept within better limits. As at once a specimen of the work, and containing what may be acceptable to our readers, we quote the article on the *iodide of iron:*

Ferri Iodidum, L. E. (U. S.)

Iodide of Iron. ***Ioduret and hydriodate of Iron.*** ***F.*** **Iodure de Fer.** ***G.*** **Eisen Iodur.**

Introduced into practice by Dr. A. T. Thomson, and described in his Obs. on the Prep. and Med. Employment of the Iodurets and Hydriodate of Iron.

Prop. Iodide of Iron (Fe I+5 Aq.=199) is of a dark gray color, with somewhat of a metallic appearance; its taste is acrid and styptic. It is often prepared in thin cakes, of a crystalline radiated structure and light gray color when fractured. If its solution be evaporated with as little contact of air as possible, "green tabular crystals are formed." It is very deliquescent, and readily dissolved in water, as also in Alcohol. The solution, when pure, is colorless, and when diluted, is not disagreeable. Heated, it volatilizes and readily fuses; but is then easily decomposed, Iodine escaping in vapor, and Iron being left in the form of Sesquioxide. From the absorption of Oxygen, the same change takes place on exposure to the air: water is absorbed to the extent of forming a dark-coloured solution, in which some Sesquioxide of Iron with a little free Iodine is held in solution, and a Sesquioxide of Iron precipitated. It is difficult to preserve it even in solution, unless a coil of Iron wire, as suggested by Mr.

Squire, be introduced into it. Sugar also has been ascertained to have this preservative effect. Comp. Fe 14+I 63·3+Aq. 22·7 = 100.

Prep. L. E. Take *Iodine* ℥vj. (dry gr. 200, E.) *Iron Filings* ℥ij. (fine iron wire recently cleaned gr. 100, E.) *Aq. dest.* Oivss. (f℥vj. E.) Mix the Iodine with Oiv. of the water, add the Iron, heat them in a sand-bath (boil in a glass matrass, first gently, to avoid the expulsion of Iodine vapor, afterwards briskly till concentrated to one-sixth its volume, E.) till the solution becomes pale green, pour off the liquid, wash the residue with the remaining boiling *Aq.* Oss. and add this to the other liquid, L. Filter. Evaporate to dryness in an iron vessel, at a temperature not exceeding 212°. (Put the filtered liquid quickly into an evaporator, with 12 times its weight of Quicklime round the basin, in an apparatus where it may be shut up in a small space, not in contact with the general atmosphere. Heat the whole apparatus, till the water be evaporated, E.) Preserve the product in (small, E.) well-closed vessels (excluded from the light, L.)

The Messrs. T. and H. Smith now make a solution of Iodide of Iron in a Florence flask with ʒvj. of pure iron filings, ℥ij. ʒij. of Iodine and f℥ivss. of cold distilled water. Boil till the liquid loses its color, and filter rapidly into another clean flask, and evaporate at a boiling heat. They obtain the compound either as a crystalized hydrate, or in an amorphous anhydrous form, according to the extent of the evaporation, and enclose without the smallest delay in small well-corked bottles. Mr. Kop recommends triturating 4 parts of Iodine with 2 parts of water, in a large dish; then to add at once, 1 part of iron filings in a state of fine division, and to continue the trituration.

[U. S. *Iodine* ℥ij. *Iron Filings* ℥j. *Water* Oivss.]

Of these preparations that of E. P. is preferable. The solution, like that of all the protosalts of Iron, is of a green color. If this be quickly filtered and evaporated, and with as little access of air as possible, the salt may be obtained without much decomposition; but, as the iron is apt to pass readily to the state of Sesquioxide, it is best prepared according to the Messrs. Smith's improved formula. As all the solid preparations are liable to change, they further recommend powdering their anhydrous Iodide as soon as it is taken from the flask, and then instantly to incorporate it with twice its weight of pure refined Sugar in powder, and to make it into a mass with honey. 4 grains will contain 1 grain of the Iodide.—Keep in shallow corked bottles in a layer of some powder.

(P. J. iii. 490.) Mr. Kop's preparation, it is said, may easily be administered in the form of pills."

About a third of the volume is devoted to inorganic substances, vegetable and animal materia medica claiming the larger portion. First some notice is taken of *flowering plants*, their organs of vegetation and of reproduction, subjects of which medical students should possess some knowledge; then a very brief allusion is made to flowerless or cryptogamic plants, after which we have their classification, and a very interesting account of their proximate principles, their geography, and the mode of collecting and drying them. The dicotyledonous plants are first considered, including, among others, hellebore, aconite, columba, cocculus Indicus, and poppy with all its products—substances as variant in their therapeutical action as any belonging to medicine. This classification, although inconvenient for reference, has this advantage, that it shows the botanical relations of the articles of the materia medica. We give an extract from this division of the work:

"Büttneriaceæ. *R. Brown.*

Theobroma Cacao, or Cacao-tree, though not officinal, is interesting in consequence of its seeds being largely employed in diet. The tree is a native of Mexico, but extensively cultivated in the West India Islands, and remarkable for its large and oval, yellow, cucumber-like capsules, hanging from the sides of the trunk and branches. These are divided into five cells, each filled with 8 to 10 ovoid seeds, piled one upon another, and covered by a membranous and succulent aril. There are other varieties of these seeds or *nibs*, which are more or less esteemed. The kernels of the seeds yield by pressure about one half of their weight of a fatty oil, commonly called *Butter of Cacao*, at one time much lauded for its medical properties. The seeds, pounded, digested, and boiled with water, with the oil skimmed off, and sweetened with sugar and milk, afford a wholesome and agreeable beverage. The Cocao sold in the shops consists either of the roasted kernels and husks, or of the husks only, ground to powder. It is sometimes made from the cake left after expressing the oil from the beans. "Much of the cheap stuff sold under this

name, is very inferior, being made with damaged nuts that have been pressed for the oil, mixed with potato-flour, mutton suet, &c." (*Cooley.*) *Flake Cocao* is Cocao ground, compressed, and flaked by machinery. CHOCOLATE, (from the Indian name *chocolat*) is made by triturating in a heated mortar the roasted seeds without the husks, 10 lbs. with an equal quantity of Sugar. and about 1½ oz. of Vanilla, and 1 ounce of Cinnamon (*Cadet*) into a paste, which is put up in various forms. "The mass of common Chocolate sold in England is prepared from the cake left after the expression of the oil, and this is frequently mixed with the roasted seeds of ground peas and maize, or potato-flour, to which a sufficient quantity of inferior brown sugar, or treacle and mutton suet is added, to make it adhere together. (*Cooley.*)

Action. Uses. Both cocao and chocolate form the basis of very nourishing and agreeable beverages (whence the name of Theobroma, or food for the gods) devoid of the stimulating properties of tea and coffee, but apt to disagree with some people and with many dyspeptics, in consequence of the quantity of oily matter they contain."

With another quotation we take leave of the work, recommending it cordially to the profession as not only one of the most tasteful and elegant, but as one of the most valuable that the subject has yet called forth.

"ACIDUM OXALICUM. Oxalic Acid. *Acid of Sugar.*

Oxalic acid ($C^2 O^3 + 3$ Aq.$= 63$ when crystalized) has obtained its name from the foregoing plant. It is said to be contained in a free state in cicer arietinum, but is probably in the state of binoxalate. It is acid and powerful enough to blanch the boots in walking through a field of the plant. Some lichens contain a very large proportion of oxalate of lime. It is now obtained in the largest quantities from the action of nitric acid on several substances of the nature of sugar and starch, including these substances themselves. Hence it has been called acid of sugar. The nitric' becoming decomposed, these substances lose their hydrogen, become oxidized and converted into an acid, which is found to be composed of 2 Eq. of carbon united with 3 of oxygen. This is soluble in about its own weight of hot, and about 8 times its weight of cold water, the solution being intensely acid. It readily crystalizes in quadrangular crystals, which are colorless and transpa-

rent, elongated, six-sided, and flattened, with two or four terminal planes, being derived from an oblique rhombic prism. The crystals effloresce in a dry atmosphere, and melt in their water of crystalization, are volatilized by heat, decomposed at a higher temperature, and with the aid of sul′ into water, carb′, and carbonic oxide. Their acidity is powerful, acrid, and corrosive: hence it is a virulent poison. Numerous fatal cases have occurred from the resemblance of its crystals to to those of epsom salts. But they may readily be distinguished by their crackling noise when dissolving in water; by the intensely acid taste and reaction of the solution; by its effervescing with the alkaline carbonates, which give a white precipitate with epsom salts or sulphate of magnesia (p. 129). This is moreover distinguished by its nauseously bitter taste. The crystals of ox′ also resemble those of sulphate of zinc (p. 158). Oxalic′ is distinguished by its powerful affinity for lime, separating it even from sulphuric′. The oxalate of lime formed is insoluble in an excess of acid. A soluble oxalate will be detected by the solution of a neutral salt of lime or of oxide of lead. The acid may be separated from the lead by the action of sulphuretted hydrogen; and then being filtered and evaporated, it will crystalize. Insoluble oxalates, the bases of which form insoluble compounds with sul′, may be decomposed by the action of this acid, when the ox′ will be separated.

Action. Uses. A virulent poison, which is very speedy in its action. Acute pain is immediately experienced, followed by vomiting. Great depression of the circulation ensues, nervous symptoms, such as great debility, numbness, etc., sometimes followed by convulsions. "But death follows so speedily after the injection of large doses, few of those who have died survived above an hour, that the symptoms have not been fully made out." Irritation and corrosion of the stomach are observed.

Antidotes. Chalk, whiting, or magnesia, mixed up with water, should be administered as quickly as possible in large quantities. Evacuate the stomach. Large quantities of water may be also useful."

Art. VI.—*A Practical Treatise on Inflammation, Ulceration and Induration of the Neck of the Uterus: with Remarks on the value of Leucorrhœa and Prolapsus Uteri as Symptoms of Uterine Disease.* By James Henry Bennet, M. D., Licentiate of the Royal College of Physicians; formerly House Physician (by concours) to the Hospitals St. Louis, Notre Dame de la Pitie, and la Salpetriere, Paris; formerly Vicepresident of the Parisian Medical Society, etc.; Graduate in the Faculty of Arts and in the Faculty of Sciences of the University of Paris. Philadelphia: Lea and Blanchard: 1847. 146 pages.

The author of this little volume has enjoyed peculiar advantages for making himself familiar with the interesting affections of which it treats. Seven years he was connected with the Paris Hospitals, three as a pupil and four as a medical functionary, during which time his attention was directed especially to uterine pathology. In the course of his investigations the truth was forced upon him that much as the diseases of the uterus had been studied, very much still remained to be elucidated. One point in particular, he says, attracted his attention, namely, "The nature, causes, and therapeutics of ulceration and induration of the neck of the uterus, the commonest of all uterine lesions." And in the work before us we have the fruits of his reflection and experience concerning these maladies.

It is in France that diseases of the female organs of generation are likely to be investigated with the greatest success. There, examinations by the *toucher* and by the speculum are submitted to continually, when the uterine organs are the seat of any disorder however slight. In our country and in England such examinations are not made, unless there be serious occasion for the step. What the result must be it is not difficult to divine. Our knowledge of uterine diseases must necessarily advance slowly, if we are left to the few opportunities afforded us of inspecting their seat and character. No doubt the modesty of our females is excessive, but, great as might be the utility to obstetric medicine, we could not desire to see it so far relaxed as to permit the use of the speculum in every case where disease of the uterus was felt or imagined. Dr. Bennet is naturally a strong advocate for such examinations, and he cites cases to show that women sometimes suffer long because their medical attendants, from excessive delicacy,

neglect the only means by which they can become informed as to the true nature of the affection.

Chapter I treats of inflammation, ulceration, and induration of the cervix uteri in women who have not borne children. Having adverted to the fact that the cervix uteri in the healthy condition is perfectly soft, smooth and unctuous to the touch, and entirely free from pain on pressure, he remarks that when inflamed it will be found hotter than the lower part of the vagina, and destitute of its unctuous, greasy feel. When ulceration is set up, it may be recognised, according to most pathologists, "by its producing the sensation that a velvety surface would offer when the finger is passed lightly over it." But this peculiar sensation, Dr. Bennet has found, is not easily appreciated, and he is more disposed to rely upon the induration of the tissue underneath the mucous surface, which, according to his observation, will always be felt, and is very perceptible to the touch. He remarks—

"In the form of ulceration that we are now examining, the induration to which I allude is quite superficial, not extending to the central tissue of the uterine neck. It is merely a thickening of the ulcerated mucous membrane, and of the subcellular tissue, most perceptible at the circumference of the ulceration; yet it is easily appreciated by the finger of one who is accustomed to look for it, and to him it is a valuable symptom. This superficial induration is generally felt most distinctly at the edge of the uterine lips, where the mucous membrane passes into the cavity of the neck, and where, consequently, two mucous thicknesses are approximated by the folding of the membrane. Although I have found this symptom of great assistance in the diagnosis of ulcerations, I must confess, nevertheless, that it is not infallible. In the very first stage of ulceration, induration may not yet exist, while, on the other hand, the ulceration may heal and the superficial induration remain for a few days. When the inflammatory induration extends to the entire substance of the cervix, as it generally does if the ulceration exists in women who have had children, the superficial induration is necessarily lost in the general hardness. Pressure on the inflamed and ulcerated cervix will often, not always, occasion slight pain, which is never the case in the healthy state."

Such being the difficulty in arriving at a satisfactory diagnosis by means of the touch alone, Dr. Bennet considers it necessary to resort to the speculum in order to ascertain the exact state of things. The appearances presented under such circumstances are thus described:

"A certain quantity of mucoso-purulent matter is always found at the superior region of the vagina, even when the lining membrane of that organ is not inflamed; the cervix uteri is generally increased in size; but seldom so much so as not to be admitted into the cavity of an ordinary sized conical speculum, the one I generally use, and by far the most convenient and the least painful to the patient. The tumefaction is mostly greatest on the upper lip, which is the larger one of the two in the healthy condition; it is therefore often neeessary, in order to expose the orifice of the os, to raise the speculum towards the pubis, and by thus slightly pressing with the superior edge of the instrument on the anterior lip, to push it back and allow the inferior one to enter its cavity. Even if the cervix uteri is too large to be admitted at once into the speculum, by thus alternately depressing its different parts the entire organ may successively be brought fairly into view. When inflamed, the tumefied cervix presents a more or less intense red, glistening hue, instead of the pale, dull, whitish color which is natural to it. On its surface may frequently be seen small white or red vesicular or papular elevations, the result of distention of the mucous follicles or of their hypertrophy. Different forms of inflammation have been admitted by some writers, founded on this appearance, but without any practical utility whatever. When the mucous membrane is ulcerated, the glossy appearance of the membranous surface is lost, and a number of vascular granulations of a vivid red hue are seen covering the ulcerated region after the mucus has been wiped away with a pledget of lint—a necessary precaution. Sometimes the ulcerated surface appears raised above the adjacent level, while occasionally, on the contrary, it appears depressed. When the ulceration is at the entrance of the os uteri, it is often difficult to discover unless the uterine lips be slightly separated. There is generally a mass of semi-transparent mucus occupying the cavity of the os uteri. The ulceration may be so superficial and slight as to be scarcely perceptible, or extend over a considerable portion of the cervix. In many cases, the pressure of the edge of the speculum, or even of the pledget with which the mucus is wiped off, oc-

casions a slight oozing of blood from the abraded or ulcerated surface. This also frequently occurs when patients thus affected expose themselves to intercourse—a fact of which they themselves are often cognisant. Menstruation is generally more painful than in the healthy state, owing to the temporary congestion of the uterus increasing the inflammatory irritation of the cervix. Indeed, the occurrence of the various symptoms of painful and difficult menstruation, when coupled with a leucorrhœal discharge, may be considered in most cases as pathognomonic of inflammation and ulceration of the cervix. Occasionally slight irritation of the urinary organs is present, giving rise to frequent desire to urinate. The annoyance and distress of mind which the local symptoms sometimes produce, coupled with the leucorrhœal discharge when it is abundant, may react more or less on the general health, and give rise to dyspepsia, palpitation, general weakness, etc."

To this description of inflammation and ulceration of the cervix are appended cases illustrative of the disorder. We copy one of these, as having interest in many respects:

"In Paris, as all who are acquainted with Parisian matters well know, the police is very severe and exercises great scrutiny and control over all persons who are not regularly domiciliated householders. In pursuance of this line of conduct, domiciliary visits are made at irregular periods, in the middle of the night, in the lower order of hotels or lodging houses, and also in those inhabited by students. This is a precaution rendered absolutely necessary by the irregularity of the lives of some of them, and by the circumstance of their congregating, to the number of fifty, a hundred, or more, in the favorite hotels of the 'Pays Latin.' When these '*descentes*,' as they are called, take place, every room is visited, and all persons whose passports are not found in order, as also all females, are forwarded to the prefecture of police. The following morning, the latter are generally sent to St. Lazare, (the hospital and penitentiary for unfortunates,) unless claimed by two respectable householders. These severe means are adopted partly with a view to the discovery and arrest of suspicious characters, and partly as a moral check. On one of these descentes, a young person named Jourg, eighteen years of age, was taken, and not having any friends, was detained by the police. In the course of a few days she was examined by the police medical authorities—a precaution usually adopted in these

cases previous to being discharged—and was found by them to be laboring under slight ulceration of the os uteri.

"It was thought that the affection might be syphilitic, and as she was not an enrolled woman of the town, she was sent to a general hospital (l'Ourcine) and not to the infirmary of St. Lazare. The hospital physician kept her for a few days, and then, not considering her affection sufficiently severe to require further treatment, sent her back to the police. Here she was again examined by the police physician, who, finding that the ulceration had not been cured, sent her into M. Emery's wards at St. Louis, where she consequently came under my notice.

"On examination by the toucher, 4th July, 1843, the cervix uteri appeared small and soft, and there was a scarcely perceptible, very superficial and very circumscribed induration; no pain on pressure. The speculum showed the vagina to be narrow and of the natural hue unto very nearly its superior extremity, where it became rather red and injected. The cervix was small, about the size of the ungual portion of the medius finger; it was evidently congested, but soft, offering little or no resistance to pressure. On its anterior aspect there was a small abrasion about the size of a sixpence, covered with minute red granulations and a little semi-purulent mucus. There was no other mucoso-purulent discharge in the vicinity. The mucus issuing from the uterine orifice was perfectly transparent; no pain whatever in the loins or hypogastric region; no heat or burning sensations; no leucorrhœal discharge; health perfectly good. The patient said that had she not been told she was ill, she should not have thought that there was anything at all the matter with her. She stated that she had been brought up in the country; that eight months previously she had come to Paris, and had lived since her arrival by working as a semstress; that she had made acquaintance with a student, who had persuaded her to accompany him home to his lodgings a few days before she was seized by the police, and that it was the first and only time she had known any one—an assertion which the state of the organs tended to corroborate. She had menstruated for three years, had never experienced any leucorrhœal discharge whatever, and had always been in excellent health. M. Emery, the physician who at first examined her, told me that the lesion, which was very slight indeed, had increased since then; while she was at the Ourcine, she had been treated by emollient injections. It was therefore considered that these means were not sufficiently energetic, and the ulcerated surface was cauterized

by the acid nitrate of mercury. Emollient injections and general baths were also resorted to.

"The tumefaction of the cervix and the ulceration increased under the influence of the first cauterization, (it was evidently rather too energetic,) but decreased under that of the second, third, and fourth, which were performed at intervals of six days

"On the 5th of August the tumefaction and redness of the cervix had disappeared, and the ulceration was almost healed. Astringent injections were then alone used, and on the 15th of August she left, perfectly cured."

This disease is not unfrequently the cause of sterility, according to Dr. Bennet. He was assured by Emery, Gendrin, and Jobert, in Paris, that they had known many young married women who had remained barren from this cause, and had become pregnant as soon as cured.

There can be but one opinion, we are sure, respecting this work, and that is, that it is a most important monograph. We fear that success like that which seems to have attended the practice of the author will not always crown the efforts of other practitioners, but there is no reason to doubt that, guided by his treatise, they will oftener be correct in their diagnosis. It may be that one reason why his remedies have not availed as much in other hands as his own is, that they have not been applied with as much perseverance. Cases of this description demand of the practitioner great patience. Many, no doubt, fail of recovery because the patient or her medical attendant grows weary in the use of the appropriate means.

Art. VII.—*The Principles and Practice of Ophthalmic Medicine and Surgery.* By T. Wharton Jones, F. R. S., Lecturer on Anatomy, Physiology and Pathology at the Charing Cross Hospital; Foreign Member of the Royal Medical Society of Copenhagen; Corresponding Member of the Imperial Royal Medical Society of Vienna, etc. etc. With one hundred and two Illustrations. *Edited by* Isaac Hays, M.D., Surgeon to Wills Hospital, etc. pp. 507, 12mo. Philadelphia. Lea and Blanchard. 1847.

This is one of a series of manuals which has attained great popularity in our country. The series embraces Ferguson's Surgery, Carpenter's Physiology, Wilson's Anatomy, Taylor's

Medical Jurisprudence, Fownes's Chemistry, Royle's Materia Medica and Therapeutics, and Golding Bird's Nat. Philosophy. All these works have been noticed in this Journal except the last, and the one before us on Ophthalmic Medicine and Surgery. The design of these manuals is to afford the student a complete and comprehensive digest of the several subjects of which they treat in a convenient compass, and it is pretty conclusive proof of the successful execution of the design, that the works have been so well received. The present volume is a worthy companion of those which have preceded it, and, both in the care with which the matter has been prepared by its author, and the style in which it is issued by the American publishers, will commend itself to the profession. A real service has been rendered to science by the publication of the series of which it is one. The study of medicine has been made easier and more pleasant by the efforts of their various authors.

The volume before us will be found to embrace a full account of all the maladies and accidents incident to the eye, and, brief as it is, to furnish something of the history of ophthalmic medicine. It commences with directions as to the mode of exploring the eyes in order to a diagnosis. The exploration is of two kinds, termed *subjective*, and *objective;* the first comprehending an inquiry into the patient's sensations in the affected organ, such as pain, tolerance of light, and state of vision; and the latter being directed towards the morbid conditions which admit of being perceived by the surgeon. These conditions, so far as they can be so represented, are illustrated by engravings. The application of remedies to the eyes, and the minor operations on these organs are then explained in detail, accompanying which are the formulas in best repute in ophthalmic inflammations. Inflammation of the eyes is treated of at great length, and all the forms of it are illustrated, and the claims of the numerous remedies discussed. The subject embraces scrofulous, arthritic and variolous inflammation. The several operations necessary in diseases and deformities of the eye are described with minute-

ness. In a word, the *manual* is a complete one, and will be found equally convenient as a text book for the student, and as a work of reference for the practitioner.

ART. VIII.—*The Pathological Anatomy of the Human Body.* By JULIUS VOGEL, M.D., Professor of Clinical Medicine at the University of Giessen. Translated from the German, with additions, By GEO. E. DAY, M.A., and L. M., Cantab. Member of the Royal College of Physicians; Physician to the Western General Dispensary; Lecturer on Pathology and Animal Chemistry at the Middlesex Hospital Medical School; Member of the Pathological Society of London; and formerly senior President of the Royal Medical Society of Edinburgh. Illustrated by upwards of 100 plain and colored engravings. pp. 534, 8vo. Philadelphia: Lea and Blanchard. 1847.

If the multiplication of treatises on pathological anatomy is to be regarded as a test of the interest felt in the study, that much neglected branch of the profession is beginning to assume a position to which, in the estimation of its admirers, it has always been entitled. In the space of a few years, besides the second edition of Prof. Gross's work, we have had reprints of Andral, Hope, Hasse, and here we have a new volume the title of which is given above. The Germans and French have always taken the lead in the cultivation of pathological anatomy. Even up to this time no systematic work on the subject has been produced in England. The volume before us reaches us through the hands of Dr. Day, to whom we owe the translation of Simon's Animal Chemistry. It is a work of decided ability, learning, and research, and of a convenient size. The translator mentions as among its distinguishing merits, that it embraces the recent discoveries effected by chemistry and the microscope. These will be found to be numerous and interesting. Physiology and pathological anatomy are assuming a new aspect since the microscope and modern analysis began to be turned upon them. Vogel has availed himself of all the light afforded by these copious sources of information. We have not room to notice it at greater length, and are compelled reluctantly to omit several other notices for the same reason.

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

Sulphuric Ether—Letheon.—Since the publication of Dr. Royle's work, this substance has acquired great celebrity in our country, under the name of *letheon*, for producing insensibility to pain during surgical operations. It was first employed for this purpose by Dr Morton, a dentist of Boston, at the suggestion of Dr. C. T. Jackson, of that city, in operations on the teeth. Patients are brought under its influence by inhaling the vapor from a very pure preparation of the ether. Drs. Warren and Hayward have operated on patients, to whom the ether was administered by Dr. Morton, by means of a peculiar apparatus, and there was little or no pain produced by the knife. The effects produced differed in different persons; in some there seemed to be complete insensibility; in others, considerable anxiety and agitation were produced, but they usually stated, after the termination of the operation, that they had felt no pain, but that their groans, &c. had been produced by unpleasant dreams, &c.; in others, the insensibility was only partial, but the pain was decidedly mitigated. There was no unpleasant effect in any of the cases reported by Dr. Warren.

The experiments in Baltimore were not so favorable, in three cases, in which it was permitted to be administered by Prof. Smith, it not only did not succeed, but acted injuriously. It is said to have failed in some cases in New-York. The cases, however, in which it has been completely successful are so numerous as to place its efficacy, in a majority of cases, beyond a doubt.—*South. Jour. Med. and Pharm.*

Use of the Letheon in London.—As intimated in the Journal heretofore, the ethereal inhalation seems destined, notwith-

standing the jealousy of some and the doubts of many at home, to a general favor and use abroad. The following is some of the information on this point received by the last arrivals from England.—*Boston Med. Jour.*

Middlesex Hospital.—On Monday last, at the Middlesex Hospital, the efficacy of the ether was put to as severe a test as it has yet been subjected to. A man of 68 had been admitted with symptoms of stone and diseased bladder; so much pain, straining and struggling attended the attempts at sounding, that it was with difficulty satisfactorily accomplished. The vesical tenesmus was incessant, amounting to total incontinence of urine. Endeavors were made for several weeks to allay this extreme irritability, so that some urine might be retained or some water received as an injection, but in vain, neither could be endured; lithotrity was consequently out of the question; and Mr. Arnott determined to perform the operation of Lithotomy, unpromising as the case was, but, if possible, whilst the patient was under the influence of the ether. In seven minutes from the commencement, but in reality only two from the effectual inhalation, its influence was obtained. The catheter was then introduced, and some water attempted to be injected, but not above two or three ounces could be borne, and this, retained by pressure, was ejected immediately on the introduction of the staff, which, owing to the state of the parts, was effected with some difficulty and consequent delay; the bladder was cut into; the stone was grasped at once, but crumbled under the forceps, requiring their re-introduction several times; the scoop was employed to remove calculous matter like mortar; and, lastly, the bladder was injected four or five times, so as to wash it out. During the whole time, from first to last, the patient gave not the slightest indication of suffering; indeed, it was not until he was removed to bed and had been some time in it, and taken some brandy and ammonia, that he did so, and then of soreness merely. Nor was the influence of the ether limited to this, its anodyne effect was maintained during the evening, the man remaining in a dreamy and "very comfortable state," as he termed it. He declared that he suffered no pain; he knew that something was being done, but he recollects nothing distinctly "after blowing the horn." Up to this time, Wednesday evening, he is going on very favorably. Without the ether the pain in this case must have been most severe, and, from the circumstances mentioned, of more than ordinary duration, but happily the patient was spared it all. The apparatus employed was one invented by Mr. Bell, chemist,

of Oxford street, who was present, and assisted Mr. Tomes in its application.—*Med. Gazette.*

The Cæsarean Operation.—The subject of this case, a dressmaker, æt. 27, of a mild disposition, is only four feet one inch in height, on account of great distortion of the pelvis and lower limbs from rickets during childhood. Her general health is good. On the evening of the 7th of April, 1846, while under temporary excitement, she had connection once with a young man lodging in the same house. She was not aware of being pregnant until the seventh month, when she consulted a surgeon, who, conscious of her dangerous position, sent her to Mr. Skey, under whose care she was admitted into St. Bartholomew's Hospital. An accurate examination was then made by several distinguished accoucheurs, who were unanimous in their opinion that embryotomy would be impracticable on account of the extreme narrowness of the antero-posterior diameter of the pelvis. It was, therefore, recommended no operative proceeding should be adopted until the full period of utero-gestation; and that the Cæsarean section would then be the most proper measure. The nature of the case being fairly and fully explained to the patient, she readily consented to undergo any operation which offered the best chance of relief. At 2 o'clock in the morning of the 25th of January, she was awakened from sleep by the commencement of labor. The membranes gave way soon afterwards, and the pains increased. Mr. Skey, with several accoucheurs, made an examination, *per vaginam*, at half past 4, A. M. The os uteri was at that time very little dilated. A second examination was made at half past 7 o'clock. The os uteri was still in the same condition, but the labor pains were rapidly increasing. The operation was, therefore, no longer delayed. The vapor of ether was inhaled by the patient for six minutes before its effects were manifest; an incision eight inches in length was made down to the linea alba, commencing two inches above the umbilicus, and terminating two inches and a half above the pubes. The linea alba was then divided to the same extent on a broad director. The uterus was fairly exposed, inclining to the left. Adequate pressure over the front and sides of the abdomen was necessary to prevent protrusion of the intestines. An incision from five to six inches in length, was then made into the long axis of the uterus, from which a well-formed, healthy-looking female child was easily removed. The placenta was extracted shortly afterwards. Thus far the operation occupied six minutes. Immediate contraction of the uterus to one half its previous size

followed the removal of the child. The free venous hemorrhage which took place from its cut surface was arrested by cold water and pressure between the hands. In half an hour the uterus had contracted to such a size as to render its replacement within the abdomen safe. Accordingly, with the sanction of Drs. Rigby, Ferguson, Moore, P. Smith, and others, the incision in the abdomen was brought together by eleven sutures. Broad strips of plaster were applied to support the muscles, and cotton wool placed on the abdomen with a flannel roller over the whole. It may be as well to observe that the inhalation of the ether produced insensibility to the pain of the first incision. Its prolonged exhibition was not allowed, lest it might possibly interfere with the contraction of the uterus.—*Ibid.*

Ether applied to Veterinary Science.—The vapor of sulphuric ether has, we hear, been employed at the Royal Veterinary College, Camden-town, on a sheep and a horse, with the most decided success. The first-named animal was affected, and had been for many months with an incurable disease of the hock-joint. The pain was so severe that the poor sheep was quite unable to put her foot to the ground without experiencing much suffering. On being brought into the theatre she was caused to inhale the vapor of ether through a tube, and in about five minutes after it was evident she was under its influence. The leg was then amputated by Mr. Simonds at the thigh, without the slightest indication of any pain whatever. The operation occupied about six minutes, and within twenty minutes from the commencement the animal was removed from the theatre and restored to sensation and consciousness. The horse was laboing under a chronic affection of the near fore-foot, commonly known by the name of the "naricular disease," for which the operation of "unnerving" is generally resorted to as a remedy. This is necessarily a very painful operation, and oftentimes the operator has to contend against the violent struggles of the animal, particularly at the instant when the division of the nerve is effected. In this case the ether vapor was inhaled for about thirteen minutes, when the horse fell forwards, and the nerve on each side of the leg was divided by Mr. Spooner without the least manifestation of pain; a slight convulsive action of the limb, similar to that which takes place when a nerve of a recently killed animal is cut through, alone giving indication of any sensation. Within twenty-three minutes this animal also had perfectly recovered from the effects of the ether. No restraint whatever was resorted to to keep the animals in the

required position for these operations, and the inhaler employed was not one invented for the purpose, but an apparatus temporarily adjusted by Mr. Morton until a more perfect one was obtained.

Pharmaceutical Society, January 13th, 1847.—The lecture-room of the Society was crowded this evening with members of the Society and medical men, to hear a paper on Mr. Squire's instrument for the inhalation of the vapor of ether, and to see and to hear descriptions of other instruments for the same purpose.

Mr. Squire observed, this is now the all-engrossing subject, and public attention is daily called to the several operations which have been performed without the accompaniment of severe pain, heretofore experienced: some failures are also recorded, without stating the particulars as to their cause. In constructing the apparatus, I have taken into the account the weight of the vapor of ether, and have placed the tube near the bottom part; considering, also, that its stimulating effects on the air-passages cause coughing, I have regulated the supply of air to dilute it at the commencement of inhalation, with means to increase its strength until the patient is able to bear its full force. To secure a full supply I have filled the upper vessel with sponge, and have also a collar of sponge around its descending tube at the bottom of the lower vessel, which imbibes any liquid ether in excess, and also serves further to impregnate the air in its passage to the tube for inhalation. The apparatus is supplied with ether at the top by a funnel, and falls in a shower on the sponge; a valve is placed in this part, to admit air, and closes to prevent the escape of ether. In the other parts, Reed's patent valves (for the improvement of which he has recently taken out a patent) are, by his permission, used in this apparatus, and I trust it may serve the very useful purpose that its original was so successful in.

After Mr. Squire had exhibited and explained his instrument, Mr. Hooper gave an account of his apparaturs, or rather, of improvements which he had made in the instrument, suggested by Dr. Boott and Mr. Robinson, and which had received their sanction. It would be unprofitable to follow the various remaining describers of instruments which were exhibited, many of which had not been tested in practice; they were really so numerous, that it would appear that the whole scientific portion of the members of the society, as well as that of many others, had been employed in inventing and contriving means for administering the vapor of ether. The modifications attempted were from the most elaborate and

complicated pieces of machinery, to mere bladders with an elastic tube and stop-cock, the latter having the advantage of not being protected by either "caveats" or "patents."

The object of this exhibition, at least, was answered, for each had an opportunity of exhibiting "his adopted," and, like a fond parent, saw advantages in his own offspring which he failed to find in that of others.

We may fairly sum up the results of the evening's "exhibition," in observing, with the President, that each form of apparatus exhibited had appeared to answer the purpose for which it was intended; that the simplest apparatus, if effective, must eventually be the most useful, and that time and experience only could demonstrate, amongst the many competitors, which form of instrument was the most likely to be generally useful.—*London Lancet.*

On the Results of Lithotrity, Methodically applied to Suitable Cases. By M. Civiale. (Comptes Rendues, Nov. 23d, 1846. p. 979.)—From 1836 to 1845, I have employed my method two hundred and sixty-six times, and have obtained two hundred and fifty-nine cures, some of which were incomplete. This result is the more remarkable from the fact that most of the subjects were aged. There were only five children. Among those operated on, were five physicians or surgeons. Seventy-nine other calculous patients applied for relief, but I did not think them in a favorable condition for lithotrity. Twenty eight have submitted to the operation of lithotomy; seventeen of whom have been cured. The others retained their stones, and most of them afterwards fell victims either to the progress or complications of the disease. In comparing the new cases with those of which I have already rendered an account to the academy, it will be seen that the operation for lithotrity has been performed by me alone on five hundred and eighty-two subjects. It will be observed that the mortality is greater in the new than in the old tables. If figures alone are regarded, this result would imply a contradiction of what ought to be expected from the improvement attained, both in the instruments and manner of operating. The difference depends, howeuer, upon the fact, that in the commencement of my practice I would undertake only favorable cases. The fate of a new method was at stake, and all of the accidents which should justly have been attribated to the choice of improper subjects, would have been charged

to it. Success alone could impose silence to an opposition every-day more threatening, and, to obtain success, it was necessary to operate only when it was pretty certain. At this time the new method has been judged. Humanity requires the surgeon to resort to the method offering the greatest chances of saving the patient, and though the result is uncertain, lithotrity allows more hope of success than lithotomy. In operating on doubtful cases, the mortality must necessarily be greater. What lithotrity appears, however, to have lost in certainty, it has gained in extension. Formerly, not more than half of those presenting themselves were operated on; now three fourths undergo the process. Art, more confident of its powers, now attacks cases which prudence formerly commanded it to abandon.—*South. Jour. Med. and Pharm.*

Statistics of Cases of Miasmatic Fever treated in 1846. By George L. Upshur, M. D., of Norfolk, Virginia.—During the past year, 105 cases of miasmatic fever came under my care. Of these, 83 were intermittent, and 22 remittent. Of the intermittent, 1 was quartan, 15 tertian, 62 quotidian, and 5 masked. Of the masked, one took the form of neuralgia, and four simulated hysteria.

The treatment chiefly employed was the sulphate of quinine, administered in large doses, without regard to the stage of the disease. In one case—a quotidian—occurring in a youth aged 16, of sanguineous, excitable temperament, I administered 15 grains just as the cold stage was passing off. All the symptoms were ameliorated; the hot stage lasted but one hour, and the patient had no return of the disease.

In 25 cases, I gave 30 grains in five hours, during the height of the febrile stage. The pulse was *lessened in force and frequency* in every instance under this treatment, and the paroxysm cut short by the speedy appearance of perspiration. In only one of these cases was the remedy preceded by other treatment. The exception was the case of an exceedingly robust man, in whom there existed, even in his ordinary health, a strong tendency of blood to the head. I bled him to twenty ounces before administering the quinine. He returned to his work (that of a baker.) forty-eight hours afterwards, and had no return of the fever during the season. He told me that for several years past he had not escaped an attack of bilious fever in the autumn, and that he was usually kept in his bed by it for three weeks. Said that he had taken the quinine before, but not while the "fever was on."

In one case, the patient was partially comatose during the first paroxysm. This condition was relieved, in a measure, by a cathartic of calomel and aloes. Three hours before the second chill was expected, I administered 25 grains of quinine, and followed this by 15 grains more two hours afterwards.—The patient missed the paroxysm, and went to work the next day.

In 14 cases there was a recurrence of the disease. The recurrence in ten of these, however, could be positively traced to a second exposure to the causes of the affection.

The masked forms of the disease yielded readily to the quinine treatment. One of the cases which simulated hysteria was remarkably severe in its character, the patient being seized every afternoon with violent convulsions, accompanied by flushed face and considerable excitement of the circulation. She was treated at first by active purgation, and vesicants to the nucha, with only slight abatement in the intensity of the paroxysm. The regularity with which the attacks came, coupled with the fact that the patient resided in a part of the city where intermittent fever was prevailing, suggested the employment of quinine. She commenced early in the morning with five grains every hour, and took thirty grains. The paroxysm was much milder in the evening, and did not recur at all on the next day. She remained well for seven days, when she was again attacked as in the first instance, and again relieved by the same treatment. She subsequently had a third attack which was cured in the same manner. Her catamenia had been interrupted for six months previous to her sickness, and did not return until six weeks after the last attack.

I was not called to a single case of remittent fever at the beginning of the disease. In one case the patient had been ill *eleven* days without any treatment whatever; she was much emaciated, and had suffered from diarrhœa for six days. I gave her a table-spoonful of the following mixture every hour:

℞.	Quiniæ Sulph.	ʒss.
	Morph. Sulph.	gr. ss.
	Aquæ	f. ℥iij.

M.

In the course of five or six hours she perspired freely, fell into a quiet sleep, and in two days after was entirely free from disease. This was the sole treatment of the case, except the tinct. chlorid. ferri, which was given for ten days after convalescence was established.

The other cases were managed after the same manner—the large doses of quinine being preceded by a simple cathartic of jalap and bitartrate of potassa, in those cases only where there was great torpor of the bowels.

Not one of the 105 cases died, and all together did not take a drachm of calomel, or other preparation of mercury.

I observed unpleasant symptoms in only three cases, where they seemed to be at all dependent upon the large doses of quinine.

1. A delicate, nervous female, aged 36, was ordered 5 grains every hour, for a second attack of quotidian intermittent. When she had taken 20 grains, she became suddenly nauseated and vomited up three mouthfuls of scarlet blood. This occurred in the morning, and the chill was expected late in the afternoon. The medicine was suspended immediately, and she missed the paroxysm, and recovered without any other untoward symptom. She was treated with quinine for the first attack and also for a third, without any such effect being produced. The hæmatemesis was not vicarious of the menstrual discharge, as the catamenia had not been interrupted.

2. In this case the quinine vomited the patient like full doses of tartar emetic. She took twenty grains in five grain doses in solution, combined with spt. æth. nit. There was no gastric derangement, prior to the exhibition of the medicine.

3. In the third case the patient, a female aged 40, who had but recently recovered from a very severe attack of *lichen agrius*, was rendered deaf, or nearly so, for ten days, by taking 40 grains of quinine in eight hours. The intermittent, a tertian, was permanently cured.

I was never deterred from giving the quinine by the existence of diarrhœa, irritability of the stomach, or headache, provided the case was urgent, and it was absolutely necessary to put an immediate stop to the paroxysms. In cases of great torpor of the bowels, if there was time to spare, I preferred to begin the treatment by purging freely, because the quinine is not readily absorbed if there is much constipation. Usually, however, the safer practice is to put an end to the paroxysms first, and afterwards attend to the local affections.

I have found great benefit from combining the sulphate of morphia with quinine, especially in those cases complicated with diarrhœa and irritable stomach. I also gave in many cases, where the skin was very dry and the thirst urgent,

the spt. æth. nit. combined with a solution of quinine, with great benefit.

My experience in the treatment of miasmatic fever in 1846 leads me to the following conclusions:

1. In a large majority of cases, no matter of what type the fever is, the "preparatory treatment," so called, is worse than useless, causing a loss of time which is often fatal to the patient.

2. A large dose of quinine, (15 or 20 grains,) administered at once, produces a more certain and permanent curative impression upon the system, than small doses (1 or 2 grains) frequently repeated.

3. Quinine in *large* doses, when administered in the hot stage, so far from exciting the circulation, acts as a decided sedative upon it—the pulse, in every instance, lessening in force and frequency under its influence. The dogma, therefore, that "quinine in fever is poison," must be discarded.

4. In *uncomplicated* miasmatic fever, mercurials are not at all essential to a complete and permanent cure. They may sometimes be given with advantage in cases where cathartics are indicated at the onset of the disease.—*Med. Examiner.*

Action of Sulphate of Quinine on the Spleen.—Dr. Pagis, interne of the hospitals at Paris, having undertaken a series of experiments for the purpose of ascertaining the action of sulphate of quinine on the spleen, publishes, in the Gazette des Hôpitaux, the results of his researches.

On a middle-sized dog the spleen was uncovered by two incisions perpendicular to each other. The transverse diameter of the viscus measured twenty centimetres, and the longitudinal six. The jugular vein was opened, and twenty-three grammes of alcoolat of quinine were injected; instantaneously the spleen diminished in every direction, its surface became rough and wrinkled, and its diameters were reduced to fourteen centimetres by five.

On another animal the experiments were repeated, with a view of comparing the results of several injections: with water they were negative, with alcohol the spleen was very slightly corrugated, but with the solution of quinine the viscus contracted instantaneously in the most evident manner.—*Med. Times*, December 26, 1846.

Fever in Ireland.—Fever is rapidly extending its ravages even in Dublin. The Cork street hospital, one of the largest establishments of its kind in Ireland, is literally crammed with patients, to such a degree of inconvenience, indeed, that the governors have given directions to have temporary buildings—if sheds or tents can be so called—prepared for the reception of the numerous patients for whom there is no accommodation within doors. The state of the Meath and Richmond hospitals is equally deplorable, and the accounts from all parts of the country represent disease and destitution proceeding at an equal pace.—*Medical Times.*

Treatment of Aneurism by Compression.—Dr. Bellingham gives a decided preference to the treatment of aneurism by compression. for the following reasons: 1. That the mode in which consolidation of the aneurism is brought about by compression is exactly the same as that in which a natural or spontaneous cure occurs. 2. Because when a cure is effected by compression, the vessel is obliterated merely at the site of the aneurism; whereas when a ligature is applied in the usual situation, at some distance from the tumor, the artery is obliterated both at the seat of the ligature and at the seat of the aneurism. He looks upon the treatment by compression as safer than that of ligature.—*Ibid.*—*Medical News.*

Child Born Alive at the Fourth Month and a Half of Pregnancy.—M. Maisonneuve lately communicated to the Surgical Society the case of a female who aborted at the fourth month and a half of pregnancy. When he was called to her, the ovum had been expelled with its membranes for about two hours. On dividing the membranes and examining the fœtus, he found to his surprise that it was still moving. He applied warmth, and in some degree succeeded in resuscitating it, for in a few minutes the respiratory motions were performed with regularity, but the child died in about six hours.—*Jour. de Méd.*

Treatment of Epistaxis by Insufflations of Alum.—When hemorrhage from the nasal cavities assumes a dangerous aspect, recourse is generally had to plugging, a measure both inconvenient and painful. M. Lecluyse has successfully em-

ployed means far more simple, and at the same time, according to his own account, more certain, namely, the insufflation, by means of a quill, of equal parts of powdered gum arabic and alum. In one case this succeeded after three repetitions, other means, and plugging among them, having entirely failed. *Gazette des Hôpitaux.—Med. News.*

Death of Dr. Bostock.—This distinguished physician died in London in August last, at the age of 73. His disease is reported to have been *cholera*—of course of the sporadic variety. *New York Annalist.*

Dr. John Thompson, late Professor of General Pathology in the University of Edinburgh, died on the 11th of October last, in the 82d year of his age. He was eminent both as a teacher and practitioner, and is well known as an author of various works on medical science, of which his lectures on inflammation, his edition of Fourcroy, his account of the varioloid, and his life of Cullen are the most celebrated. His life was a busy and useful one. Clinical lecturing owes to him its existence in Edinburgh. He gave there the first separate course of lectures on surgery. He was one of the celebrated eight who commenced the Edinburgh Review. It was he who succeeded in inducing the College of Surgeons in Edinburgh, to found a professorship of surgery, and he delivered the course for sixteen years. He was also the founder of its museum. He established a dispensary, from which the poor were visited at their own houses. He was a warm champion of the non-mercurial treatment of Syphilis. He was President of the College of Physicians. He delivered the first lectures in Edinburgh on Pathalogical Anatomy, in preference to a symptomatology, and collected the finest collection of colored pathological drawings, with the histories of the diseases attached, now in existence, and worth $10,000. Of such a man we may safely say, that he has raised a monument more durable than brass. He was sceptical as to the power of medicines, and too honest to conceal his want of faith, which somewhat diminished his success as a practitioner. His two sons are Professors.—*Ibid.*

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KENTUCKY INSTITUTION FOR THE BLIND.

We have lately received the fifth annual report to the Legislature of the board of visitors of this interesting school, established a few years ago by the Commonwealth of Kentucky in connection with many benevolent citizens of Louisville. The number of pupils at the close of the late calendar year was 31, of whom 13 were admitted during the year, six or seven having been discharged through the same period. Of the latter the board remark—

"Several of the pupils who have been discharged in the last year had been in the school but a short time, and from age or want of capacity gave little promise of being much benefited by a longer continuance in the institution. And here it may be well to repeat what has been heretofore stated, that the institution is strictly a school for the education of blind youth of good mental capacity, and not an asylum for the old or imbecile, for whom suitable asylums should be and are elsewhere provided, as they can derive but little advantage from associating with the young and active, while the latter may suffer immensely from such association. We therefore urge upon all friends of the blind, who may apply for the admission of pupils into the institution, the importance of making known as far as may be the mental capacity, character and habits of each candidate. By care in

this respect, the expenses of fitting out and transporting children to the institution may perhaps in some instances be avoided. Nor can we too earnestly press the importance of sending pupils at an early age. The circumstances by which the blind are too frequently surrounded at home are exceedingly unfavorable to mental, moral and physical improvement; and the most serious difficulties with which the officers of our institution have to contend had their origin in the early homes of the pupils, where, untaught if not uncared for, they passed their childhood and in some cases their youth. The nobler powers, neglected, go to decay, while the lower faculties, without culture, increase in strength; the proper balance of the mind, destroyed, is with the utmost difficulty restored; and not only the school days but the entire life may be wasted in unavailing attempts to restore to their place, passion and reason and conscience. If the consequences are confined to the unfortunate individuals, the evil is less; but placed in a school, they exert a most unfavorable influence on all. their fellow students. A proper regard, therefore, for the best interests of the pupils and the institution makes it incumbent on us to scrutinize very carefully the character of every candidate for admission."

We have extracted this paragraph, in the hope that our brethren in the adjoining States (who should consider themselves in some degree the natural guardians of the blind,) will do what may be practicable in the case—that is, give to parents such advice as will prevent those who are unfit to become scholars from being sent. At the same time we would exhort them to search out others, and facilitate their being sent to the institution. Every part of the country contains blind children whose parents have not even heard of the school, or if they have, are incredulous as to the advantages it can impart. From the want of early medical attention, the children of the poor are peculiarly apt to lose their sight when attacked with our endemic ophthalmia. The report now before us affords indubitable evidence of this fact. It states that of the thirty-one pupils in the school on the 19th of January last, twenty-one were beneficiaries of Kentucky, five of the State of Indiana, and one of a benevolent society in New Orleans, leaving only *four* pay pupils. Again we say to all our readers. remember the blind children of your neighborhoods, and use your influence to have them sent to the Kentucky or some other institution, where by cultivation of the senses of touch and hearing, their intellectual, moral and physical capabilities may be improved, and their happiness and usefulness increased.

EXAMINATIONS FOR THE DOCTORATE IN THE UNIVERSITY OF VIRGINIA.

We have lately received from one of the professors of this University a printed sheet of questions submitted to the candidates for graduation in 1846. We presume the questions are put into the hands of the candidate to be answered forthwith in writing, without the assistance of books or friends. After traveling through them, we feel bound to admit that if no candidate graduated unless he answered the majority of the interrogatories correctly, the alumni of that school are better informed than those of the country generally. The questions are arranged under nine different heads,—Anatomy, Physiology, Surgery, Obstetrics, Chemistry, Materia Medica, Therapeutics, Practice of Medicine, and Medical Jurisprudence. As specimens of the whole, we extract the articles 'Surgery' and 'Practice of Medicine:'

"*Surgery.*—1. Give the symptoms, pathology and treatment of the shock produced by extensive burns.

2. After reaction has been some time established, and during the progress of the case, what internal organs are most liable to suffer, and in what manner?

3. What is the third period of danger in burns of the third degree?

4. Describe the pathology of metastatic or consecutive abscess, stating the characters of the primary lesion and the signs on which the diagnosis is formed.

5. Give the diagnostic symptoms and the treatment of diffused arteritis, and state its most common effects where resolution is not obtained.

6. Give the pathology and diagnosis of spontaneous aneurisms and their treatment by Hunter's method.

7. Give the causes, signs and treatment of fracture of the clavicle:

8. Of fracture of the fibula near the malleolus.

9. Give the symptoms of iritis, and state the distinct indications of treatment, and the considerations on which they are founded.

10. Describe the common operation of lithotomy.

11. Give the differential diagnosis of the different tumors of the scrotum and testicle."

"*Practice of Medicine.*—Give the semiology, etiology, pathological anatomy and special pathology and therapeutics—1st, of diabetes mellitus; 2d, of acute muco-enteritis; 3d, of ascites; 4th, of pulmonary apoplexy; 5th, of phthisis pulmonalis; 6th, of phlegmasia alba dolens; 7th, of cerebral apoplexy; 8th, of eclampsia parturientium; 9th, of bilious remittent fever; and, 10th, of typhoid fever.

Give the general pathology of inflammation, dropsy, hemorrhage, tuberculosis, convulsions, and fever."

These are the shortest of the nine, and yet either of them would be a good day's work even for a professor.

UNIVERSITY OF LOUISVILLE.

The Commencement in the Medical Department of the University of Louisville was held Saturday evening, the 6th of March, when seventy-five gentlemen, who had passed satisfactory examinations before the faculty, and otherwise complied with the requirements of the institution, received the degree of Doctor of Medicine. JAMES C. HARRIS, M.D., of Wetumpka, Alabama, a graduate of Transylvania University; DAVID A. POST, M.D., of Orangeburg, Ky., a graduate of the Medical Department of Western Reserve College, Ohio; and THOS. J. TODD, M.D., of St. Joseph, Mo., a graduate of Transylvania University, were admitted to the Ad-eundem Degree in this University. The Honorary Degree of Doctor of Medicine was conferred upon Dr. CYPRIAN P. MATTINGLY, of Bardstown, Ky., Dr. WILLIAM J. JOHNSON, of Fort Gaines, Georgia, and Dr. ELIJAH NEWLAND, of Salem, Indiana.

An appropriate and instructive valedictory address was delivered to the graduates by Prof. Short, in presence of a brilliant assembly which had met to witness the interesting ceremonies of the occasion. The professor lashed some of the professional vices of the day with merited severity, while he exhorted the graduates to a life of diligent study, by which alone they could hope to win an enduring name as learned and skilful physicians.

MEDICAL CONVENTION.

From all that now appears, the Medical Convention in Philadelphia, which is to meet on the first Wednesday in May, will be large. The medical schools and societies in all the States are appointing delegates, so that the convention may be expected to reflect the sentiments of the profession in every part of the country. A multitude of projects will of course be brought forward, some of them Utopian

enough, but some, it may be hoped, of a wise and salutary tendency. Where such contrariety must prevail in the sentiments of the members, forbearance, moderation and a spirit of concession will be necessary to harmonious action and ultimate good. Professor Paine, of New York, may be considered as heading one party likely to have a voice in the convention. If some are too revolutionary in their views, Prof. P. is ultra conservative. He has proposed his plan of medical reform. We append it without note or comment:

"Notwithstanding I am among those who believe that medical education is carried to a much greater extent in this country than in any other as it respects the mass of the profession, and believe also that the American physician surpasses the European in philosophical views of disease and in practical habits, there is no one who can desire more than myself to see the standard of excellence still further advanced. For this purpose, only one experimental plan has presented itself to my mind as at all likely to result auspiciously, and it is one which cannot fail of being decisive.

"It is assumed by many that any existing school which may extend its term of instruction, and exact a higher preliminary education, will find its reward in an increased number of students. Upon this basis, which appears to be urged by the advocates of 'reform' as a motive to the nonconformists, I would respectfully propose that the summary step be taken by the national convention of physicians, which is soon to meet in Philadelphia, to institute a college upon the contemplated plan of 'reform,'—embracing of course in its objects a requisition of extended preliminary acquirements, a multiplication and extension of lecture terms, an examination of the candidates for graduation by other hands than their teachers, etc.

"If the desired 'reform' can be obtained, it surely must be most feasible under the united concurrence and influence of the whole profession; and the moment a successful demonstration is made, all other colleges must necessarily, as it appears to me, adopt the example, however it may curtail the number of educated physicians."—*Boston Medical and Surgical Journal.*

THE BULLETIN OF MEDICAL SCIENCE.

This excellent journal, edited by Dr. Bell, of Philadelphia, has been discontinued. Dr. Bell is one of the most experienced and most gifted of those who have wielded the editorial pen in our country, and his retirement is a loss to our medical literature. We hope his life and energies may long be spared, to be devoted to the service of his profession in other and equally useful departments.

RESIGNATION OF PROFESSOR WARREN.

Professor Warren has resigned the chair which he held for forty years in the medical department of Harvard University. In retiring he delivered an address to his students, extracts of which are given in the Boston Medical and Surgical Journal. We make room for the following:

"A kind and cheerful spirit should form a part of the character of every physician, whether young or old. Those visited by disease desire a cheerful sympathy in the physician who attends them, because they are thus induced to believe that he takes such an interest in their welfare as will lead him to a careful investigation of their symptoms, and to a diligent application of the means which may remove them. They regard every movement and expression with the utmost watchfulness, and their hopes rise or sink in a degree corresponding with these appearances. Many patients have lost their lives by a discouraging prognostic, and many have revived by a cheerful assurance of recovery.

"The morals of a young physician are not less important than his manners. He who has at his control, through the unknown remedies he may employ, the lives of his fellow men and the happiness of their families, requires a sensitive conscience to conduct him through all the mysterious and dangerous paths of medical duty. This sensitiveness is indispensable to the preservation of that interest which may languish under the pressure of professional fatigue. Doubt may sometimes obscure the course of his treatment, but whenever the indication is clear, no occupation, no apprehension should for a moment prevent its due execution."

PRIVATE MEDICAL INSTRUCTION IN LOUISVILLE.

Drs. Bayless, Buck and Colescott have just commenced the third annual course of lectures and examinations in which they have given so much satisfaction. We cannot too strongly recommend to students to come to this city and avail themselves of the advantages afforded by this association.

FACTS FROM CORRESPONDENTS.

BLOODY VESICLE OF THE VAGINA.

By JOHN A. COTTEN, M.D., of Greenwood, Mississippi.

July 7th, 1837, Dr. Stokes and myself were called to see a servant girl of Mr. E. H. Stone, then of Madison county, Miss. The patient was aged about 23 years, decidedly above ordinary size, well proportioned, and of sound constitution. She was between seven and eight months advanced in pregnancy, and complained of an incessant itching and burning sensation at the vulva, accompanied by general constitutional disturbance. Upon examination, we found situated within the vagina, about one inch from the sphincter, an exceedingly vascular tumor, very elastic, of an oval form, and about one inch in diameter. The woman informed us that the growth had been very gradual, and the uneasiness proportioned to its size, the pain increasing with the growth of the tumor. To be more specific, the tumor had been about a month acquiring the size to which it had attained when we saw it. In appearance and consistency it resembled more than anything else a bloody vesicle filled to its greatest capacity. Thinking as we did that the gravid uterus afforded the best rationale of the complaint, we took from the arm of the patient about twenty ounces of blood, ordered a saline cathartic, cold astringent washes to the parts, low diet and the recumbent posture. This plan of treatment was persisted in for about ten days, without checking in the least the progress of the disease.

Having failed in this attempt to disperse the tumor, and no pulsation being perceptible, it was proposed to evacuate the tumor by puncture, and accordingly Dr. Stokes made a small opening with a thumb lancet. A stream of dark venous blood, of fully the size and force of that in venesection from the arm, followed the operation. We suffered the blood to flow to the extent of about ten ounces, without the slightest diminution in the size of the tumor, the supply being fully equal to the loss. We began now to suspect that the tumor

was aneurismal in its nature. All efforts to arrest the flow of blood by compression proved abortive. I finally proposed strangulation with the ligature, and, Dr. Stokes concurring in the suggestion, I immediately passed a curved needle, armed with a strong thread, below the base of the tumor, and divided the ligature so as to embrace the posterior half with one portion of the thread and the anterior with the other. The ligature was tightly drawn around the respective portions of the tumor, and the hemorrhage immediately ceased.

On the fourth day the strangulated portion sloughed, and the patient appeared to be doing well for a few days; but in a little while the same itching, burning sensation which characterized the pain of the first tumor began to manifest itself still higher up the vaginal canal. Careful examination brought to view another tumor of the same appearance and about half the size of the first. After much difficulty, we succeeded in embracing with a double ligature the base of this tumor also, as we had practised in the first. In due time it sloughed, and all unpleasant symptoms subsided. At the full term, our patient gave birth to a well grown and healthy child.

It is now more than nine years since the removal of the tumors, and though the woman has given birth to three or four children since, there has been no return of the disease.

January 25, 1847.

BOOKS RECEIVED.

Through Messrs. Maxwell & Prescott, booksellers of this city, in addition to the books mentioned in another department of the Journal, we have received the following works: Wilson's Anatomy, third edition, Von Behr's Hand-book of Human Anatomy, Philosophy in Sport made Science in Earnest, and a supplementary volume to the popular Encyclopædia Americana.

THE

WESTERN JOURNAL

OF

MEDICINE AND SURGERY.

EDITORS.

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PROFESSOR OF PATHOLOGY AND THE PRACTICE OF MEDICINE
IN THE UNIVERSITY OF LOUISVILLE.

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PROFESSOR OF CHEMISTRY AND PHARMACY IN THE SAME.

THOMAS W. COLESCOTT, M. D.

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THE

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OF

MEDICINE AND SURGERY.

MAY, 1847.

ART. I.—*Notes on Medical Matters and Medical Men in Paris.* By DAVID W. YANDELL, M.D., of Louisville, Ky.

I had the pleasure in a former letter of giving you an extract from the memoir of Dr. Nélaton, on the very interesting subject of *Cancer of the Bones;* the whole of the memoir has since appeared in the Annual of Surgery and Medicine, and is so new and valuable that I have translated it for the Journal, a task the more readily undertaken for knowing the very high estimation in which the author is held by his brethren. I have only to regret that he cannot be allowed to speak to your readers in his own language, in which he would appear, I doubt not, to far more advantage than I shall be able to exhibit him in an English garb.

Memoir on Cancer of the Bones. By Dr. NÉLATON, Professor to the Faculty of Medicine of Paris.—We find can-

cer of the bones, generally designated *osteo-sarcoma*, described, by the authors of the last century, as J. L. Petit, Duverney, and Heister, who continually confound it with caries and exostosis, under the name of *carnification des os.* Among modern writers, Sir A Cooper, under the title of *fungous exostosis* of the medullary membrane, described one of the varieties of cancerous degeneration of the bones, and although Boyer has written of laminated cellular exostosis, it does not prevent him from afterwards devoting a chapter to osteo-sarcoma, affections between which one in vain endeavvors to detect differences which in reality do not exist. In a third article, where he treats of spina ventosa of adults, the same writer describes one of the forms of cancer of the bones. It is easy to perceive that different names given to the same disease must create doubt and uncertainty in the mind of the reader. Cancer, it is true, does not always produce the same disorders in the bones, or to speak more accurately, does not always manifest itself by the same symptoms; nevertheless we are bound to acknowledge that in spite of these differences, the essential characters of the disease do not vary, and that the stamp of cancerous affections is constantly present. The different forms which it offers should be united under the same general title; this work will thus comprehend the history of cellular exostosis, spina ventosa of adults, and osteo-sarcoma.

Cancer is developed sometimes primitively in the osseous tissues; at other times again this tissue is attacked consecutively, in consequence of the propagation of a degeneration which originally commenced in the neighboring soft parts.

Anatomy and Physiological Pathology.—We have already remarked that cancer of the bones presents itself under different forms, which may be reduced to four:

First form. We find in the interior of the osseous tissue the nuclei of the cancerous growth forming round patches contained in excavations which they exactly fill; the tissue of the bone has completely disappeared in the points invaded by the accidental substance, and is replaced by the cancerous mat-

ter; there is a loss of osseous substance similar to that produced by a cutting punch; this destruction observed equally in the compact and spongy portion is sometimes seen on the bones of the cranium, on the sternum and ribs, and on the diaphyses of the femur and humerus. In the neighborhood of this loss of substance the bone appears to have suffered no alteration, and but little more vascularity is produced than is consistent with the healthy state. In the beginning the cancerous nucleus preserves exactly the form of the portion of bone which has disappeared; and it seems that the progress of the degeneration is limited by the periosteum; at a more advanced period, however, the cancerous matter increases in development, and forms a more or less considerable prominence on the surface of the altered bone. But if the seat of the accidental production be a long bone and correspond to its diaphysis, as the medullary membrane does not offer the same obstacles to its growth as the periosteum, it is not uncommon to see the cancerous mass extend towards the medullary canal in which it propagates itself with rapidity, and thus forms in its interior a plug or stopper which extends much higher than the tumor which projects from the surface of the bone would lead one to suppose — a disposition, I need hardly remark, which it is extremely important to bear in mind when it is decided to amputate the limb in this variety of the affection.

Second form. In this division the tissue of the bone has undergone a profound alteration and presents a tumor, generally voluminous, a section of which exposes a great number of cells, very irregular in form and dimensions, filled by cancerous matter in various stages of softening; there seems to be a considerable diminution of the osseous tissue in the cells of which the cancerous substance is deposited. This variety is met with particularly on the epiphysis of the long bones; the tumor increases not unfrequently very slowly, and often acquires considerable size. This is the form in which tumors weighing twenty, thirty, and even fifty pounds have been

found, and is the affection which has been more especially described in standard treatises as *osteo-sarcoma.*

Third form. In this the cancerous mass, commencing in the interior of the bone, gradually increases, but instead of destroying the osseous tissue, as is the case in the first form, instead of producing a cellular structure, as in the second, it presses it eccentrically, causing it to yield in a slow and gradual manner, and ends by presenting a very thin and friable shell, in the interior of which the cancerous matter is contained. This is the *spina ventosa* of authors. This species of cancer, more rare than the preceding, is confined almost exclusively to the long bones of the extremities, although it has been occasionally observed on the inferior and superior maxillary bones. When the tumor has acquired sufficient volume, the osseous shell becomes perforated, the tumor escapes by the perforation, approaches the surface of the body, and ultimately progresses like the other varieties.

Fourth form. The tumor is applied to the exterior of the bone and covered by the periosteum, but it is very easy to perceive that the osseous tissue is itself altered, in fact, a collection of excessively fine, flexible osseous prolongations similar to hair implanted on the surface of the bone are observed, which are often three or four centimeters in length, placed one against the other so as to represent a bundle, not unlike the wick of a candle, in the intervals and on the surface of which the cancerous matter is deposited. This disposition, more rare than the foregoing, has been frequently observed upon the iliac bones. At the moment I am writing this, there is before me a femur which affords a very striking example of this variety. This tumor, which possessed considerable size before maceration, envelops the whole inferior third of the bone, and is covered with osseous points three or four centimeters (about an inch) in length.

Such are the different forms assumed by cancer of the bones. Well marked differences, it will be perceived, exist between them, while at the same time no one is deficient in the characters proper to cancerous affections. Thus, what-

ever may be its first form, the tumor constantly increases, softens, ulcerates, is reproduced almost always after removal, and terminates by inducing the cancerous cachexia.

An important remark to be made in relation to the development of these tumors is, that they never affect the cartilaginous tissues; for example, when the cancer commences near the articular extremity of the bone, the diarthrodial cartilage is found untouched, notwithstanding the complete degeneration of the epiphysis which supported it. This immunity of the diarthrodial cartilage renders the propagation of the cancer into the articular cavity of very rare occurrence; still it does sometimes happen, and the following is the process by which it is effected: The cancerous matter being arrested in its course by the cartilaginous lamina increases laterally, until it arrives at a point where the osseous tissue is covered only by periosteum and synovial membrane; these two tissues are soon attacked by cancer; the tumor advances into the interior of the articular capsule, which it distends in a manner similar in certain cases to that observed in effusion of liquids. I have shown this year to the Society of Surgery an extremely fine example of this propagation of a cancer of the femur into the articulation of the knee. In this case the accidental production was introduced into the articulation by the space which separates the two condyles of the femur.

Until now I have adhered to the somewhat vague designation of cancerous tissue, reserving for myself an explanation upon this point; in an immense majority of cases it is the *encephaloid* tissue in various degrees of development, that is observed in the bones. Sometimes it shows itself under the form of quite fine white or rose colored and slightly vascular masses, at others forming an extremely soft, almost diffluent tumor, traversed by a great number of vessels, presenting occasionally in its interior sanguine collections and fibrinous clots more or less altered.

In a few rarer cases it is the *colloid* tissue which constitutes the morbid mass; still it is more frequently allied to the encephaloid tissue. It is not uncommon, particularly in

the second form of the disease described, to see in the same tumor these two tissues in different stages of development, besides which, true cysts containing a serous or sero-sanguinolent fluid are often found.

Finally, melanosis has been encountered in the bones, but always, so far at least as I am informed, in a state of infiltration. Strictly speaking, this would constitute a fifth variety of cancer of the bones; but it has never attracted the attention of surgeons, since it in no way modifies the texture of the bone, and does not manifest itself by any characteristic symptom. It is proper to remark that the scirrhous tissue which is frequently found in other parts of the body never shows itself in the bones, at least I am not aware that the presence of this accidental tissue in these parts has ever been clearly established by observation. In certain cases the encephaloid tissue has been found, according to some authors, mixed, so to speak, with an erectile tissue, which would offer a combination of two morbid tissues.

Symptomatology. Although the four different forms of cancer now described do not present a series of symptoms precisely similar, we believe it preferable to exhibit collectively the symptomatology of the various forms, seeing that they possess a great number of points in common, and that a special description of each would lead us into unnecessary repetitions, adding that the reader, in recalling what we have said in the preceding paragraph upon the anatomy and the physiological pathology, must easily recognise in the exposition the characters which belong to each variety.

Some patients experience at the beginning of the affection, for a longer or shorter time, pretty vivid but passing pains, which recur sometimes spontaneously, at other times supervene after fatigue or sudden movements; still nothing is revealed on an examination of the painful part; but after a certain time a tumor begins to show itself. In other patients, on the contrary, the tumor appears without having been preceded by pains; it is indolent and scarcely attracts the atten-

tion of the patient, but in either case it increases, sometimes slowly, sometimes with frightful rapidity.

When the tumor is of small volume, the skin which covers it preserves its normal aspect, and from its transparency only allows to be seen certain flexuous and dilated veins; but if the cancerous mass has attained great size, the skin is distended, glossy, bright and attenuated; it is then especially that the subcutaneous veins assume the form of sinuous, fine lines, which give the finger on exploration the sensation of grooves more or less deeply excavated on the surface of the tumor. This presents, in certain instances, a softness which suggests the idea of a collection of liquid, while at other times it is hard, and offers an osseous resistance. Its surface, at first quite regularly round, loses its form; prominent and soft nipples are here and there remarked, while others are more firm and resisting under the finger. Between these various portions are occasionally observed harder points, formed by the osseous enclosure or partitions which divide the tumor into numerous segments.

In the second form of cancer of the bone described, in which the tumor occupies the whole circumference of the bone, an exceedingly curious phenomenon, and one which possesses a certain importance in the diagnosis, is observed: The tumor, formed by a great number of osseous cells, increases in a lateral direction especially, but at the same time is developed in a line parallel with the axis of the bone; the result of which is that the two extremities gradually separate, and the whole of the bone undergoes a true lengthening, which in some instances has been as great as five or six centimetres.

If endeavors are made to move the tumor, it is perceived that the motions are transmitted to the subjacent bone, which seems to constitute a part of the tumor. In some cases a deformity and swelling of the bone at the point where it unites to the base of the tumor, may be recognised by the touch. In certain other cases a peculiar sensation is imparted to the touch, which has been compared to the rumpling of dry parchment or the crushing of an eggshell; this sign belongs

especially to the third form of which we have spoken, though it may also present itself in the second, when pressure has been exercised on one of the fragile partitions which we have described; and it may possibly be met with even in the first form, when an extremely delicate lamella still covers the cancerous nucleus developed in the interior of the bone. This sign can be by no means always perceived; and it is worthy of mention that after this crepitation has been elicited a certain number of times, it can no longer be produced until at the end of some twelve or twenty-four hours, when it may be detected anew.

Other tumors, quite rare, it is true, offer beats synchronous with the arterial pulsations—beats which do not consist in a simple rising, but in a true expansive movement of the parts, as is met with in aneurismal tumors. The ear applied to the diseased region perceives frequently in this case a *bruit de souffle* more or less marked, but still, ordinarily, not nearly as distinct as that of aneurismal tumors. The patients experience lancinating pains in the tumors, which are often more severe in the night than day, and might suggest the idea of a syphilitic cause, if it were not known that this is a character proper to the greater part of organic affections of the osseous tissue. Some patients nevertheless feel no pain, and are, so to speak, troubled only by the enormous volume of the limb; while it is a matter of surprise to how great an extent the subjects of these tumors retain the power of moving the joints contiguous to the diseased part. It is easy to understand how the bones, profoundly altered by the cancer, should break in certain cases with extreme facility; in fact, a sudden movement or even an inconsiderable strain is sometimes sufficient to fracture the most resisting bones—the femur, for example; and the prognosis should always be grave under such circumstances, for the fractures do not ordinarily unite.

Independently of the symptoms proper to the tumor—symptoms manifested, no matter in what part it may be situated—others are observed, which depend upon the compression of the neighboring organs. These symptoms of neighborhood,

as they are called by M. Gerdy, vary according to the seat of the tumor; thus there will sometimes be an œdema dependent on compression of the principal venous trunks; at others, neuralgic pains, arising either from distension or compression of certain nervous filaments; in fine, the most varied functional troubles, such as dyspnœa, dysphagia, retention of urine, etc., may be manifested as the trachea, œsophagus or urethra may be displaced or compressed by the tumor developed in their neighborhood. In certain cases these symptoms alone suffice to jeopard life; but in cases where the tumor does not embarrass the functions of any organ indispensable to life, it continues to be developed, and presents the whole series of phenomena belonging to cancerous affections; thus ulceration, hemorrhages and the cancerous cachexia supervene, and finally death occurs. When the tumor is of any great volume, as is observed frequently in the second form described, it is not uncommon to see these phenomena occur and succeed each other with frightful rapidity, although the tumor may have increased up to this point with extreme slowness. The steps by which it is effected are these: The skin, which was violently distended, is attacked by erysipelas; one or more gangrenous patches appear on different points of the tumor; these become detached and lay bare the softened cancerous tissue; an ichorous liquid flows from the surface of the ulcerated parts; finally the patient succumbs, exhausted by the pains and losses which he every day experiences.

Diagnosis.—When there does not yet exist any tumor appreciable to the eye or touch, the pains which accompany the development of the cancer may be taken for those of rheumatism or syphilis; nor is it difficult to perceive how such a mistake might occur, since cancer of the bones is an affection rarely met with, while rheumatism and syphilitic diseases are extremely common. The latter will naturally first suggest themselves to the mind of the physician. This error may be avoided by considering that rheumatic pains are generally erratic, that they cease for several weeks and even months, to reappear and continue uninterruptedly for several days; while

the pains proper to cancer show themselves constantly in the same point, and do not, like the preceding, reappear under the form of paroxysms. As to the pains in the bones incident to syphilis in certain forms, their exacerbation. produced either by the heat of the bed or pressure of the fingers, the anterior existence of syphilis, and the influence of an antivenereal treatment, will generally lead to their recognition.

When the tumor begins to show itself, it may be taken for a periostosis; but this is accompanied and has usually been preceded by characteristic pains, and, moreover, promptly yields to the proper treatment.

When the tumor has attained greater size, it may be confounded with either an exostosis, a cyst developed in the osseous tissue. an aneurism, or, finally, with those pulsating tumors described under the name of aneurism of the bones. But it is especially osteo-cartilaginous exostosis that is apt to be confounded with cancer. A considerable degree of hardness, the absence of pains, and an extremely slow march, render the existence of an exostosis very probable; whereas the circumstances the opposite of these would lead one to infer the presence of a cancer. But we must confess that the diagnosis will often present. in such a case as this, an uncertainty which can only be dissipated by a prolonged attention to the progress of the disease.

There is a striking resemblance between cysts developed in the osseous tissue and the third form of cancer described; in the two cases the laminæ of the osseous tissue are crowded together, thinned, and afford to the finger on pressure a crepitation; and an explorative puncture is the only means of resolving the doubt. If the records of science did not contain a great number of cases in which we see cancerous tumors have been mistaken for aneurisms, one could scarcely conceive how such errors could be committed. Nevertheless it ceases to be a matter of surprise. when it is remembered that certain cancers of the bones present pulsations synchronous with those of the arteries, and offer also a *bruit de souffle.* But it is necessary to remark that these tumors present these two phe-

nomena only at a period when the accidental tissue has become exceedingly vascular—that is to say, at an advanced stage of its development—while the pulsations in aneurism are perceived from its beginning. It is here proper to recall that circumstance, quite rare, it is true, of which we have spoken in the pathological anatomy of this affection, viz., the lengthening of the bone witnessed in some examples of cancer, and which is never seen in any case of aneurism.

Every cancer of the bones is an extremely grave affection; but the danger varies according to its seat, its degree of development, and its progress, which, in the second and third forms, is much slower than in the remaining two. Often, in the latter case, there exists but a single tumor, well limited by an osseous envelop, which circumstance may facilitate the removal of the degenerated bone; whereas in the first, on the contrary, there generally exist multiplied nuclei, a condition which renders all treatment comparatively hopeless.

Treatment.—This is divided into curative and palliative. The first consists in complete removal of the tumor; to render which operation practicable, certain local conditions are indispensable: 1st, we must be able to determine with exactitude the extent of the tumor and its connections with the neighboring organs; 2d, that the soft parts are sound to an extent which allows the formation of flaps sufficient to cover the wound succeeding the removal of the degenerated bone.

When the tumor is situated on one of the limbs, amputation or disarticulation is to be resorted to—some writers esteeming the latter preferable, because it is not liable, as amputation is, to the objection that it may leave a cancerous prolongation in the medullary canal above the point of section. But this otherwise judicious observation is applicable only to the first form of the disease; and even in this variety it is not wise, in anticipation of a danger which after all may not exist, uselessly to sacrifice a considerable portion of a member, and thus render the operation much more serious. It is generally sufficient to amputate two or three inches above the tumor, immediately removing another portion of the bone if it is as-

certained that the cancer has propagated itself in the medullary canal to the point of the first section.

At other times, when the bone affected is of small dimensions, it is extirpated entire; it is in such instances that the bones of the metacarpus, metatarsus, and even the clavicle have been repeatedly disarticulated with success. Finally, in certain cases, one may confine himself to an exsection of the altered portion of the bone, an operation which has been practised a great number of times with success in the inferior and superior maxillary bones.

If the situation or the volume of the tumor prevents a complete removal, a palliative treatment is alone applicable. The patient should avoid with the greatest care every cause likely to induce a rapid progress in his affection, such as the use of topical irritants with the view of obtaining resolution; he should abstain even from every local application, at least while there are no acute pains. When these affect the patient, simple cataplasms sprinkled with opium afford more relief than anything else. If this is not sufficient, unguents containing the extract of opium or belladonna, or the salts of morphine, applied by the endermic method, may sometimes be advantageously employed. The narcotic preparations ought to be given internally also; but it is proper to add, that these remedies soon lose their power to calm the pain, and that it is necessary to change them often or to increase the size of the dose.

The following article will be found to be one of unusual interest. It has been sought after by the Paris physicians with the greatest avidity, and is here esteemed one of singular ability. It is entitled—

Clinical Researches concerning Phlebitis, especially that called Spontaneous Phlebitis. By C. Forget, Professor of Clinical Medicine of the Faculty of Strasbourg.—Phlebitis is a disease that has been known only a short time, and which notwithstanding the numerous investigations to which it has already given rise still presents a great number of problems

that are unresolved. It would even seem that science has retrograded on this subject, for various points in the history of phlebitis that not long ago were admitted to be substantiated, are again made matters of discussion. Thus, the formation of a sanguine clot as a necessary phenomenon of phlebitis is contested; as also, that this clot should be considered as the cause and not rather the effect of the disease; and a dispute has arisen as to the reality of the transmission of pus into the circulatory channels. My object is not to reply to these questions, but I shall confine myself simply to those upon which I believe I may throw some light, and which appear to me to have some importance in a practical point of view.

Phlebitis has been divided into suppurative and non-suppurative, adhesive and non-adhesive, traumatic and spontaneous, etc. Although these various denominations are said to be based on fundamental differences between the species, in our opinion they are but accidents of the same affection, and express nothing; still they possess a certain practical utility; and it is the last form, I think, which offers the greatest interest, if the power, that we believe may sometimes be attributed to the contact of the air, be admitted as real. We shall treat separately in this essay of traumatic and spontaneous phlebitis.

1. *Traumatic Phlebitis.*—Previous to the works of modern writers on inflammation of the veins, the inflammatory accidents following traumatic lesions, bloody operations, and particularly venesection, were attributed to anything else than to phlebitis and purulent infection; but since then every local inflammation supervening after bleeding has been considered as almost always due to a phlebitis, and every phlebitis has been regarded as almost always necessarily mortal. The first of these opinions is an error in diagnosis that the instructed practitioner knows how to avoid; the second is an exaggeration suggested by the terrors that purulent infection may well inspire, against which opinion, however, there is a large array of facts, to which we desire to add our modest

share. The first of these questions scarcely meriting a serious examination, we will pass rapidly over it.

1st. *The inflammations which result from the operation of venesection are not always phlebitis.* And, in fact, among nine cases of grave inflammatory accidents observed by ourselves after phlebotomy, in three these accidents have consisted of simple phlegmons.

Case I.—In a man affected with albuminuria, a bleeding at the arm was followed by an intense phlegmon, of which the repeated application of leeches and topical emollients and sedatives procured the resolution in the space of a few days.

Case II.—Venesection practised in a woman laboring under pneumonia was followed by the development of a grave phlegmon at the bend of the arm, which, notwithstanding antiphlogistics were extensively applied, terminated by suppuration. Incisions suitably made gave issue to pus, and recovery took place without any general accidents, five weeks after the appearance of the phlegmon.

Case III.—Bleeding at the arm in a man 68 years old, suffering from bronchitis, gave rise to a diffuse phlegmon, which, despite the rational treatment, passed to gangrene and was followed by death. The autopsy afforded no evidence either of phlebitis or purulent infection.

In the first of these cases, the phlegmon terminated in resolution; in the second, in suppuration; in the third, in gangrene, and neither during the life of the patient nor after his death were we able to detect any symptom of phlebitis. Thus in nine cases of grave accidents following venesection there were three, or one-third, in which phlebitis was not present. I say *grave* accidents, for in respect to these cases there are numbers of others with which the practitioner daily meets, where a little redness, tumefaction, and even suppuration are found at the place of bleeding, which yield to the most simple means, causing neither the physician nor patient the slightest uneasiness.

2. *The phlebitis which results from venesection is not followed by fatal accidents as often as is believed.* We might

cite a large number of cases drawn from our own practice in particular and that of our associates, but we wish to refer only to those observed publicly, and collected, as are all those comprised in this essay, at the clinics of the faculty. These last also number three, but we content ourselves with reporting one which resembles the others *sicut ovum ovo.*

Case IV.—In a man aged 38 years, affected with an intense bronchitis, venesection produced an inflammatory swelling at the bend of the arm. On examination of the part an indurated cord was discovered, painful on pressure, rose colored superficially, knotty, occupying the median cephalic, and extending about five centimeters from the incision towards the cephalic which participated in the inflammation. The mouth of the wound is gaping and grayish; pressure made from above downwards on the venous cord gives issue to a puriform liquid. Repeated applications of leeches made above the disease, according to the directions of Lisfranc, emollient cataplasms, sedatives, and afterwards mercurial unctions, produced in the course of ten or fifteen days the resolution of this localised and probably adhesive phlebitis.

Thus, of six cases of phlebitis, three terminated by resolution. I have myself been attacked with a phlebitis resembling the preceding, being much more mild however, although it gave me great uneasiness, for the fate of the unfortunate Maréchal, whom we knew, who perished a victim to the disease that he was amongst the first so well to describe, was in my memory.

As to recovery from phlebitis supervening at the period of purulent infection, it is fortunate that all practitioners do not encounter it, and I confess, for my own part, that I have never either obtained or observed it. I call this result fortunate, for I am convinced that nature has more to do in these very rare recoveries than our remedies, whatever they may be.

We omit the report of the three cases where traumatic phlebitis passed through all its accustomed phases from the period of purulent infection until death; they offer nothing of

particular interest, and it is not with fatal phlebitis that we are occupied. But to speak of the phlebitis occasioned by phlebotomy, I should mention two other cases where purulent infection resulted, in one, from the operation of laryngotomy, and the other, (a remarkable and important circumstance) from simple scarification in a case of anasarca.

But I leave the history of these traumatic accidents that possess nothing new to the reader—except the bearing of some facts, too few certainly, but which may lead to the rudiment of an opinion or presumption in regard to the relative frequency of the various accidents that sometimes follow venesection, and the terminations of the phlebitis that may arise from this operation,—for a subject more novel if not more important; that is, the history of the phlebitis called spontaneous, in opposition to that which results from wounds.

II. *Spontaneous phlebitis, and its mildness attributed to the absence of the contact of the air.* The term *spontaneous* applied to any malady whatever, is a conventional term, expressing that the cause of the disease is unknown; for every morbid phenomenon must have a cause consisting in a modification of the elements of the organism.

During some years past numerous cases of spontaneous phlebitis have occurred among our patients. In none of these, that we now remember, in none, we repeat, have suppuration or accidents from absorption manifested themselves. We have asked ourselves *if the absence of the contact of air* was not the cause of this benignity of the spontaneous and subcutaneous phlebitis unattended by division of the skin. We have always, as now, believed ourselves authorised to consider this kind of affection as mild, compared to that where the inflamed vein is uncovered. This is what I published in 1842, in the summary of the Medical Clinique of the Faculty of Strasbourg. These remarks thrown in a report were passed unnoticed, as do the majority of things produced in the Provinces, and it was with great satisfaction that, three years after, I recognized in a memoir of Dr. Bou-

chat, published in the Gazette Médicale, of Paris, (April, 1845,) several of these ideas, developed and conveyed in analogous terms. From the fifty-one cases collected, obtained from authors and observed by himself, our *confrere* concludes that spontaneous phlebitis, which he prefers designating as "*phlegmasia alba dolens non-puerperale*," never terminates by suppuration; that it is never followed by accidents of absorption; that of itself it is not a grave affection, and does not of necessity require energetic treatment.

M. Bouchat has wished to ascertain the cause of those phenomena which, according to him, separate this affection from traumatic phlebitis, "and which should prevent the slightest connection being established between them." Upon the latter point we cannot agree with him; first, because we cannot see the essential differences that separate the two affections; second, because it appears in some cases, rare, we will admit, that spontaneous phlebitis does terminate in suppuration.

To return to the formal cause, the author admits that in spontaneous phlebitis complicating chronic affections, which is that most frequently seen, the coa ulation of the blood is the primitive fact; that the cause of this coagulation of the blood resides in the relative excess of the fibrine of this fluid; finally, that this phlebitis is produced only secondarily to this coagulation. These opinions have been adopted by the learned author of the *Compendium de Médicine*, article *Phlebite*. For ourselves, we can only see in these propositions hypotheses which do not appear sufficient to sustain the discussion. How, in fact, can we conceive of this spontaneous coagulation of the blood, especially when it occurs in cases where the plasticity of the blood is, according to these authors, diminished, as in typhoid fever? Why does the blood coagulate in certain vessels sooner than in others? If the plasticity of the blood is the real cause of this coagulation, why does it not rather show itself in the acute phlegmasia—in rheumatism, for example, where the fibrin of the blood is, as they again declare, at its maximum quantity? How is it possible to explain this coagulation thus localized, if it is not by a local cause itself? But is it asked,

what is the cause of this phlebitis? It is, we reply, that which produces so many phlegmasias, whose cause is unknown to us, and which shows itself so frequently in valetudinarians; such are erysipelas, stomatitis, enteritis, and the pneumonias called ultimate. How demonstrate that phlebitis is consecutive to the coagulation of the blood, when the pain of the limb is, according to the testimony of all observers, the first phenomenon observed? Why credit an exception so opposed to the general rule, that the coagulation of the blood may be the consequence of an alteration of the vessel? Even admitting that phlebitis may be consecutive to the coagulation, is it the less a phlebitis, and does an inflammation change its nature from being secondary?

Such are the reflections that occurred to me while reading the essay of our *confrère*, and I was not convinced either by this absence of the clot in the first periods of the disease, or by the absence of redness of the venous parietes, already signalized by Cruveilhier, who has done most for the history of phlebitis—an absence of redness which is explained in the majority of cases by the period at which the affected part is most frequently observed, that is to say, after the resolution of the phlegmasia, when the obliteration of the vessel is the only remaining vestige of the phlebitis. I persist in considering the thickening, the hardening of the walls of the veins, coincident with the pain and other acute phenomena, as the inflammatory characters; and instead of having recourse to the sanguine diathesis so problematical in its effects if not in its essence, I believe it my duty to adhere to the etiology that I announced in 1842.

Agreeably to my opinion then expressed, the termination by adhesion and the slight danger of spontaneous phlebitis do not depend upon its being secondary, which, I repeat, implies nothing as to the gravity of the disease; these effects appear to me to arise much more probably from the fact that this primitive phlebitis is protected from the air. I am supported in this, firstly, from the simple observation of facts, which teaches us that concealed phlebitis is mild, while open phlebitis is grave in its character; secondly, from every day's experience, which

demonstrates the unpleasant effects of the contact of the air with inflamed, and especially suppurating surfaces; thirdly, from those other observations, borrowed from modern surgery, which so clearly establish the advantages of light dressings and immediate reunions; fourthly, and especially, the remarkable results obtained from the surgical practice called subcutaneous. Although we believe we have on our side both direct observation and every analogy, to M. Bouchat belongs the merit of having performed a remarkable labor, and of having lucidly established the coincidence of adhesive phlebitis with chronic affections, which is the principal object of his memoir. I should have kept all these considerations to myself, if a most interesting case, which recently presented itself at my clinic, had not afforded me the opportunity of expressing the opinions which I entertain on this subject, at the same time that I gave that publicity to the case which it deserved.

Among the great number of chronic affections of every variety that have occurred at the clinic of the faculty of Strasbourg during the last eleven years, I have observed only four times in a very manifest manner the complication of spontaneous phlebitis. Of these four examples, there is one of which I have a very imperfect recollection, and of which I cannot find the report among so many others. Another of these facts relates to a phthisical patient, who had varices of the legs, which inflamed during the march of the disease, then passed to resolution, which prevented our wish to establish at the autopsy the state of the previously inflamed veins. We proceed to report the other two cases *in extenso*, which we the more readily undertake, as they are the first and last that we have witnessed:

Spontaneous Phlebitis, Terminating in Resolution, in a Phthisical Woman; Death; Necroscopy.

Case V.—A semstress, aged 35 years, entered the clinic on the 18th of August, 1837, having been sick five months. For three months her menses have not appeared. At her entry she had a cough, flocculent expectoration, febrile pulse, dull-

ness, mucous *rales*, cavernous *souffle*, pectoriloquy at the summit of the right lung, night sweats; besides which, she complains of very acute pain in the calf of the left leg, which presents nothing worthy of note except sensibility to pressure.—Gum tisane, decoction of wild cherry-tree bark; ten leeches and emollient cataplasms to the calf of the leg.

For some days following the patient was affected with indigestion from which a diarrhœa resulted. Twelve leeches to the anus, emollients, diet. The fever presented quotidian exacerbations, to arrest which, sulphate of quinine was administered; but the fever persisting and the pulmonary symptoms becoming aggravated, the quinine was suspended. Sixteen leeches under the clavicles, emollients.

The 2d of September, fifteen days after her admission, the pain in the calf continues uninterruptedly; upon the course of the external saphena an unequal and painful cord is discovered; the lower part of the leg is occupied by a slight and resisting engorgement. We recognise phlebitis. Fifteen leeches to the calf, emollient cataplasms.

The following days the pain extended to the thigh. Twelve leeches.

September 8th, the knotty cord of the leg can be felt in the bend of the knee; same pectoral symptoms, continued fever. Fifteen leeches to the popliteal region, blister to the arm, emollients, opium.

Towards the end of the month, the venous cord still remains, notwithstanding repeated local bleedings, but it is less painful; the œdema of the leg is always slight. Early in October the thoracic symptoms grew worse, dyspnœa increasing, frequent cough, emaciation, hectic fever. Small bleeding at the arm, emollients, opium, diet.

The chest absorbs the attention; we no longer occupied ourselves with the leg, in which the patient complains of no more pain. The phthisis made rapid progress, and the patient died on the 26th of October, a little more than two months after her admission into the hospital.

At the autopsy, the lungs were found hollow, with mem-

branous caverns. In the other organs there was no particular lesion; no vestige of purulent absorption.

Examination of the veins of the left inferior extremity.—Very light œdema of the leg. The femoral vein presented a perceptible thickening of its parietes; it is obliterated by a consistent and ancient fibrinous clot, which extends above from the external iliac vein downwards in the popliteal and external saphenas to the base of the calf.

One may judge by the activity of our treatment of this spontaneous phlebitis how serious were the apprehensions we entertained; we were indeed alarmed by the dangers which, according to authors, accompany phlebitis, and we are disposed to attribute the resolution to the treatment which we pursued. The pain in the calf, it will be remarked, which was the first symptom of the disease, is observed in the majority of cases of this kind. The œdema was slight compared with what it ordinarily is. There is no doubt in our mind that this was a primitive phlebitis. The two cases previously mentioned in this memoir occurred subsequent to this. The disease assumed the same character of initial pain; the œdema was also slight. In one of them, I have remarked, the phlebitis seized veins already varicose, a circumstance which should confirm us in the opinion that it was a phlebitis with which we had to do, the sub-inflammatory nature of varices, in a majority of cases, being generally admitted since the labors of Breschet, Briquet, etc., and we should believe that an acute inflammation had become engrafted upon a chronic phlogosis.

Notwithstanding the favorable termination in all three of these cases, although the last were treated with extreme moderation, may dissipate our fears respecting the consequences of this spontaneous phlebitis, still they have not taught us to distinguish it from the traumatic form of that disease. These were the facts which formed the basis of the opinions expressed by us in our report of 1842—opinions which have been alluded to above, and are supported in the essay of M. Bouchat.

Finally, some months since, the following case, remarkable

in so many respects, presented itself, which, after stripping it of details foreign to the subject in hand, we proceed to report:

Acute Articular Rheumatism Relieved by Repeated Sanguine Emissions—Typhoid Fever (Follicular Enteritis) Cured by the Expectant Method—Phlegmasia Alba Dolens (Phlebitis) Terminated in Adhesion—Pelvic Ulceration—Exhaustion—Purulent Infection—Death—Necroscopy.

Case VI.—In the description which I am about to give, I have deemed it preferable to divide the history into four periods:

1st. *Period of rheumatism.*—A woman, æt. 30 years, of robust constitution and sanguine temperament, entered the clinic on the 23d of April, 1846. She had been laboring for five days under acute articular rheumatism; the constitutional and febrile symptoms were such that we ordered frequent bleedings (coup sur coup.) Six bloodlettings were practised in as many days, besides which, forty-four leeches were applied, and the rheumatism was thus relieved on the sixth day of the treatment and the eleventh of the disease.

2d. *Period of follicular enteritis.*—On the tenth day of the disease, signs of typhoid fever manifested themselves. The next day we observed the face dull and sunken, nares contracted, tongue coated and dry, abdomen a little sensible on pressure, pulse 100. Emollients.

The following days the adynamic symptoms persisted, and diarrhœa supervened, with involuntary discharges; typhoid bronchitis, with rales, dyspnœa, etc., now came on.—Sedative emollients.—Excoriations, which insensibly increased, were seen on the sacrum.

On the twenty-fifth day (fifteenth of the typhoid state), the patient complained of pain in the right leg, which was perceptibly œdematous, resisting, and sensible on pressure; pulse 120. Emollient cataplasms upon the right iliac region, tepid acidulated lotions to the leg.

The typhoid condition gradually amended under the influence of the sedative emollients to such a degree, that on the sixteenth day of its duration and twenty-sixth of the disease, we were able to pronounce the patient convalescent from this second disorder.

3d. *Period of phlegmasia alba dolens (phlebitis.)*—The twenty-seventh day, the painful œdema, dating now three days, appeared to have diminished in the leg and concentrated itself at the thigh. The expression of the face was good, the diarrhœa occurred only at intervals, but the pulse remained frequent, and the emaciation progressed.

On the thirtieth day, the superficial veins were defined on the thigh and hypogastrium, and we recognised a deep-seated phlebitis, with obliteration. The excoriations still remained comparatively superficial. Emollients; dress the wound with tannate of lead; soups.

On the thirty-second day, the œdema of the thigh was very decided, the articulation of the knee fluctuating. *Ut supra;* mercurial unctions upon the œdema four times a day.

The thirty-sixth day of the disease, the left leg became infiltrated, twelve days after the appearance of the œdema in the right. The general exhaustion progressed. Wine and water, fomentations of quinine.

The forty-first day the two legs were very œdematous, resisting and shining. The veins of the thigh and abdomen, even as high up as the thorax, form a very distinct network. The diarrhœa continued and the ulceration extended. Rice tisane, abdominal cataplasms, opium, soups, dressing with opiate cerate.

On the following days the œdema diminished, was no longer painful, and on the fiftieth day a little thickening of the legs was all that remained. The superficial venous network was very evident. The *phlegmasia alba dolens* or phlebitis, which continued during twenty-five days, might be looked upon as resolved. The diarrhœa and pelvic ulcerations still persisted. Rice tisane, syrup of quinine, injections with extract of rhatania three scruples and ten drops of laudanum.

4th. *Period of exhaustion and purulent infection.*—From this time the exhaustion, caused by the diarrhœa and pelvic ulcerations, which multiply in spite of the various methods and applications that have been used, steadily progresses. Towards the ninetieth day a new œdema arose, now en-

gendered by the cachexia; the ulcerations penetrated to the bone; the face has become hippocratic; the pulse threadlike. Briefly, notwithstanding the tonics and supporting alimentation the patient, exhausted by the suppuration, diarrhœa, fever, and pain, died on the 28th of July, the hundredth day of the disease, the fiftieth after the resolution of the phlebitis, without my being able precisely to fix the period when the purulent infection, caused by the pelvic ulcers that evacuated themselves at the autopsy, had supervened.

Necroscopy thirty-six hours after death.—Extreme marasmus, large and deep ulcers around the pelvis, infiltration of the legs.

Thoracic cavity.—Lungs engorged with a sero-sanguinolent fluid. On the external portion of the right lung a dozen metastatic abscesses were observed, varying in volume from the size of a pea to that of a filbert; other abscesses of the same nature were found more deeply seated.

Abdominal cavity.—At the end of the small intestine some brown elliptical spots appeared; vestiges of ulcerated or resolved wounds of the ancient follicular enteritis; redness, and fungous condition of the large intestines.

Examination of the veins of the inferior extremities.—On both sides the tibial, crural, external, and internal iliac arteries, and even a portion of the primitive iliac, were found obliterated by a long, consistent, fibrinous clot, varying in color from violet, to a bright yellow. These ancient and solid clots adhere slightly to the internal walls of the veins, which are sensibly thickened and offer various discolorations. The internal saphena veins are free up to their insertion into the crural vein, permeable and contain a small quantity of fluid blood. They communicate by large anastomoses with the branches of the epigastric and the tegumentary vessels of the abdomen, which themselves anastomose with the superficial veins of the thorax. *The articulation* presents nothing remarkable.

The following are the principal reflections which this case suggests:

1st. An acute rheumatism has rapidly disappeared under repeated bloodlettings.

2d. To this affection, regarded at present as purely inflammatory, seeing the excess of the fibrin of the blood which characterizes it, succeeds another affection, the inflammatory nature of which is contested, seeing the diminution of the fibrin of the blood so frequently observed in it; that is, typhoid fever.

3d. During the course of this affection, with deficiency of fibrin, the coagulation of the blood in the inferior extremities manifests itself. Is it not more natural to attribute this coagulation to a phlebitis than to plasticity of the blood which we are unable to prove?

4th. Phlebitis resolved itself after having offered all the characters of phlegmasia alba dolens.

5th. Although there existed around the pelvis ulcers that continually increased, it was only a long time after the resolution of the phlebitis (fifty days) that the patient succumbed to exhaustion and purulent infection, which, even posteriorly to the phlebitis of the members, had manifested its source in the pelvic ulcers.

We proceed to detail another observation, taken from the Bulletin de Thérapeutique, (Oct. 1846,) which, while it confirms some of the preceding considerations, furnishes others that are new.

Phlegmasia Alba Dolens (Phlebitis) occurring in the course of a Typhoid Fever.

Case VII.—A girl æt. 20 years, entered the Necker Hospital in the service of M. Trousseau, towards the end of August, 1846. She had been already laboring under a well characterized typhoid fever, which was accompanied by certain ataxic phenomena. Saline purgatives were administered, at first, every day, and after a little time at greater intervals, under the influence of which the typhoid symptoms very notably amended. Convalescence seemed upon the point of being established towards the third week, when, one

morning at the visit, the patient complained of an extremely sharp pain, which had arisen suddenly during the night, in the left leg. On examination of this part a general serous infiltration of the foot and leg was observed, with tension and resistance of the skin, whose shining color contrasted strongly with that of the limb of the opposite side. The pain was inconsiderable on the anterior portion of the leg, but at the middle of the calf it acquired, especially under pressure, very great intensity. On placing the hand in the popliteal hollow a hard and painful cord could be felt, evidently formed by the obliterated popliteal vein. The limb was engorged throughout, and walking was impossible.

Notwithstanding this complication, convalescence was soon established: the œdema gradually diminished, and although there still remained some traces of it on the 3d of October the patient was nevertheless able to be up the greater part of the day.

Here, again, is a *coagulation* of the blood in a patient with *defibrination.* The author agrees with us in believing it was a primitive phlebitis, pure and simple; and we do think that it cannot be considered as anything else. Another important consideration arising from this and the preceding cases is, that spontaneous phlebitis is not always connected with chronic affections; for in the case in our hands the phlebitis was produced on the twenty-fifth day, and in this at the end of the third week.

It is still further to be remarked, that the subjects of these two cases were in the way of recovery when the phlebitis disclosed itself—that our patient would probably have recovered but for the fatal complication of pelvic ulcers, which supervened fifty days after the resolution of the phlebitis, and that the last patient was positively cured.

Phlebitis, then, is a pure accident, which should not be thought necessarily mortal, and which ought not to be compared, as sometimes it has been, to those "*ultimate*" accidents which announce a speedy dissolution. From these

facts, not multiplied it is true, but which are found corroborated by analogous cases abounding in the archives of the science, we believe ourselves authorized to deduce the following conclusions:

1st. Spontaneous phlebitis most generally, but not always, occurs as a complication of chronic affections.

2d. Spontaneous phlebitis is very probably primitive, viz: anterior to the coagulation of the blood.

3d. Spontaneous phlebitis is probably of the same nature as traumatic phlebitis.

4th. If spontaneous phlebitis is almost always adhesive and rarely terminates by suppuration and purulent absorption, it is, very probably, because the inflamed vein is preserved from the contact of the air.

5th. This agency being admitted, very important practical consequences result, for it demonstrates the advantages of immediate reunions in large operations, the necessity of closing exactly the opening of the vein in venesection, the utility of light dressings, and the excellence of the surgical method called subcutaneous.

6th. Spontaneous phlebitis presents the same symptoms, and is very probably of the same nature, as the affection known under the name of *phlegmasia alba dolens;* and that the latter, therefore, is not a disease peculiar to puerperal women, but may arise in the male sex, and under very varied circumstances.

7th. Spontaneous phlebitis, although sometimes giving rise to extensive œdema, is relieved, almost always, and with much ease, by the application of mild remedies.

8th and finally. Spontaneous phlebitis is a simple accident of disease where it occurs as a complication, and does not infallibly warrant an unfavorable prognosis.

The inhalation of ether continues to be the most exciting subject before the professional mind of Paris. At a meeting of the *Cercle Agricole*, to which I procured a ticket through

our good friend, M. Ed. de Verneuil, I heard an interesting detail, this evening, of its effects upon the lower animals by M. Constantin James, a young man of fine abilities. I have witnessed operations by Roux, Blandin, and Velpeau, at the Hôtel Dieu and La Charité Hospitals, on patients under the influence of the vapor. Among others, I saw Blandin exsect with the most perfect success two mammary tumors from women narcotised by the ether, neither of whom cried or made any resistance during the operation, nor remembered it after it was over. The same surgeon has employed the ether with like happy effects in a number of other cases; but it is only fair to state, that in some instances, while the subjects appeared to be fully under the influence of the narcotic, they nevertheless felt and complained loudly of the pain. Roux has operated very many times on patients who had been prepared by the ether, and in the majority of cases with the most satisfactory results. With Velpeau the article has proved equally successful, and, in addition to several painful operations performed upon individuals under its influence, he reduced, a few days since, a luxation of the shoulder joint in a man which previously to the inhalation had resisted all efforts at reduction. These are only a few of the cases that have occurred at the hospitals mentioned. Every morning, one may witness similar triumphs of this great discovery in the surgical ward of any of the Paris hospitals. I call it a *great* discovery, and so it is esteemed by the profession here. It is even ranked by some with that which has rendered the name of Jenner immortal. The credit of it generally is conceded to our country, but a counter claim has been set up, and a Frenchman is endeavoring to show, that he was the first to prove that the vapors of ether are narcotic.

The work of Desmarres on the eye is not yet out and will hardly be issued before the beginning of April. I am glad to see that a translation of it by Dr. Clendinen, of Baltimore,

is to be published in America contemporaneously with the appearance of the original in Paris. I bespeak for the work the favorable reception of my countrymen, assured by my knowledge of the ability of Dr. Desmarres, that it will be one of the very highest excellence.

Paris, February 27th, 1847.

Art. II.—*An Essay on the Medical Properties of Sanguinaria Canadensis.* By Isaac Thorn, M.D., of Yellow Springs, Ohio.

In view of the neglect with which our indigenous articles of the materia medica have too generally been treated, I have determined to lay before the profession my experience in regard to the therapeutic powers of the *Sanguinaria Canadensis*, a plant often mentioned by medical writers, but the virtues of which appear to be but imperfectly understood. In his elaborate and learned system of Materia Medica, Pereira refers to the blood-root as having been used with favorable results in diseases of the lungs and in rheumatism, and he also mentions that it has been given in jaundice, but the propriety of this practice he considers questionable. Dr. Eberle devotes three pages of his Materia Medica to the consideration of the medical properties of the plant, and quotes a number of authors who have found it a valuable therapeutic agent. Among others he refers to Dr. Francis, of New York, who reports having used it successfully in diseases of the chest, and also in a case of rheumatism. Dr. Eberle gives his own favorable experience in the use of the remedy, especially in cases of asthma; and he quotes Dr. McBride as having administered it with success in a case of hydrothorax. In the United States Dispensatory, by Wood and Bache, the sanguinaria is mentioned in terms of approbation. The authors of that work state that many judicious physicians have borne strong testimony to its curative powers; but, like the

other writers quoted, they do not appear to have arrived at any very satisfactory conclusions as to what are its peculiar properties.

According to the analysis reported by Eberle, the sanguinaria contains cinchonine, extractive matter, resin, a gummy matter, and gallic acid in a state of combination. Dr. Dana, of New York, has found in it a peculiar principle to which he has given the name of *sanguinarina*, and which, no doubt, is the active principle of the root. It is described as a white pearly substance, of an acrid taste, which renders the yellow of tumeric brown, changes the infusion of purple cabbage green, unites with acids, and shows all the other qualities of an alkali.

Writers concur in regarding the sanguinaria as a stimulant, acrid emetic, and narcotic, to which alterative, tonic, and diaphoretic properties have been added by some; but the number of published observations needs to be extended before its *modus operandi* can be accurately determined.—During the last two years I have been closely engaged in observing the effects of the remedy in various diseases, and in this time have used a large quantity of it. The result of my trials with the root is, that it is a *sedative* of no ordinary powers. I should say that, for reducing the force and frequency of the pulse, at the same time without prostrating the system, it is one of our most efficient remedies. In this respect, I have found that it possesses very decided advantages over tartar emetic and digitalis. Its sedative effects are exerted slowly, not being perceived until after the medicine has been administered twenty-four to forty-eight hours, and then come on very gradually. Eberle notices this fact.

I have also found the sanguinaria to possess true *alterative* properties. Under its use the secretions of the liver are manifestly affected, and, with this change, the condition of the stomach improves. I have administered it in a variety of glandular obstructions, and its action in such cases has been highly satisfactory.

The sanguinaria unquestionably also exerts a *tonic* influence on the system, but this it does, I am disposed to think, by virtue of the action just referred to. Restoring as it does healthy secretion, the tone of the system will certainly improve under it. With the returning appetite and powers of digestion, the complexion rapidly improves, and this effect has been so striking, that I have been strongly inclined to believe, that there was something in the bloodroot which increased directly the quantity of blood corpuscles. Whether this conjecture has any foundation in fact or not, my observations have satisfied me that we possess few remedies which more efficiently aid the recuperative energies of the system than the sanguinaria. And in this connection I would refer to the experience of veterinary practitioners, which is not without its bearing upon this subject. In the disease of horses known by the name of *yellow water*, the puccoon root is esteemed by farriers the very best remedy. This disease is attended by extreme debility, emaciation, and an impoverished condition of the blood. The serum is largely out of proportion to the solid constituents; in other words, the blood exhibits all the characters found in it in anemic diseases, and the paleness of complexion and debility of the animal point to the same condition of things. Considering the resemblance of this affection in the horse to chlorosis in the human subject, I should expect benefit from the use of the blood-root in the latter complaint. I have not had an opportunity of making the trial, but it occurs to me as one worthy of being made, especially since the remedy would be likely to exert a beneficial influence aside from any changes that it might induce directly in the blood. But it will be more profitable to dismiss these conjectures for the present, and give some of the results at which I have arrived from my experiments with the remedy.

Case I.—Mr. A., æt. about 40 years, a respectable merchant of Clifton, after exposure to inclement weather, was attacked with pneumonia. I found him with high fever, cough, se-

vere pain in the chest, and expectorating phlegm tinged with blood. He was treated by venesection, tartar emetic, and blisters, for two or three days, when all the symptoms of pneumonia suddenly disappeared, but were succeeded by those of dysentery. The pains in his bowels were severe; the abdomen became tympanitic, and all his symptoms assumed a threatening aspect. On consultation with Doct. Gillett, of Springfield, it was concluded to put him on an infusion of the sanguinaria in such doses as his stomach would bear. His pulse, at the time he began to take this remedy, ranged from 120 to 130, and was tense and corded. After a lapse of twenty-four hours the pulse began to improve, and in two days had declined to 80; and with the amendment in this respect all the other symptoms improved, and convalescence was soon established.

Case II.—The Rev. R. F. consulted me in the summer of 1845, respecting an inactive state of the liver, with which he had been troubled for several years. He was dyspeptic, had dullness of intellect, an icterode complexion, and suffered from constipation of the bowels. I put him upon sanguinaria combined with taraxacum, as follows:

℞. Sanguinar. pulv.
Tarax. ää ʒj.

M., divide into 30 pills, of which take two morning, noon, and night. Under their use the patient soon began to mend. His digestion was better, bowels became soluble, his head clear, and he was finally cured. I might detail other cases analogous to this, but content myself with reciting one of each affection in which I have employed the remedy.

Case III.—Mrs. C., of this neighborhood, aged about 35 years, consulted me in respect to a goitre of eight or ten years' standing. She was the mother of four children, of a slender form, lymphatic temperament and a scrofulous family, her mother having died of scrofula and several of her

sisters exhibiting the taint. I prescribed tincture of sanguinaria, 20 drops, three times daily, conjoined with two grains of the iodide of iron. After a few weeks the latter was discontinued and the sanguinaria given alone, in order that the powers of this article might be fairly tested in the case. At the time the lady entered upon the treatment, the tumor was as large as a man's fist; in six months it was less than a hen's egg. During the use of the sanguinaria her menstrual flux became excessive, and, supposing that the root might have some connexion with this, she was directed to intermit the remedy for a time. The menses were less copious at the next period, and by the second or third they had become natural in quantity. She now resumed the use of the sanguinaria, and at the next return her catamenia was too copious; but her strength is not in the slightest degree affected by the profuse discharge, and in fact her general health has decidedly improved in the two years during which she has used the remedy. The tumor, though materially diminished in size, has not entirely disappeared.

In several cases I have witnessed the same effect upon the uterus from the use of the sanguinaria, and I was visited, this morning, by a lady just relieved by it of dysmenorrhœa.

Case IV.—Mrs. B., aged about 35 years, in the spring of 1835, consulted me on account of difficulty of breathing. This difficulty was increased by the recumbent posture, and was attended by cough, slight œdema of the lower extremities, and, in a word, the general symptoms of hydrothorax. She was at the time pregnant with her second child. I gave her cathartics and diuretics, of which calomel formed a constituent, and by this plan prevented the disease from advancing until after the birth of the child. Soon after that event the symptoms became aggravated, and, having tried a variety of remedies inefficiently, she was put upon the sanguinaria. One of the early and promising effects of the remedy was an improvement in her circulation; which was soon followed by the subsidence of the œdema and other hydropic symptoms.

She continued to mend under the use of the medicine and finally recovered her health.

Case V.—April 29th, 1846, I was called to Mrs. C., the patient of a neighboring practitioner. I found her sitting propped up in bed and breathing laboriously. I learned from the physician in attendance that, a fortnight before, she was seized with a pain in the left side, accompanied by fever, and that she had been bled and blistered for the affection. On examination, I discovered water in the left side. So urgent were the symptoms that, on consultation, it was decided to practice *paracentesis thoracis*, and accordingly I introduced a scalpel between the fifth and sixth ribs of the left side. More than a gallon of fluid was discharged which coagulated on cooling. Immediate relief to the respiratory apparatus followed the operation.

The patient was now put upon the following prescription: ℞. calomel one grain, and sanguinaria and squills of each, in powder, two grains, to be repeated every three hours. She persevered in the course for three days, when her stomach became so irritable that it was found necessary to discontinue the squills and calomel. The dose of sanguinaria was considerably increased, so as to bring the circulation under its influence. For about eight days the fluid in the chest appeared to be returning, but from that time forward there was no increase, and in a month it had disappeared, and the patient was able to be about her work. It is remarkable that, in this case also, something like menorrhagia supervened upon the use of the blood-root, and has persisted up to the present time, notwithstanding which the lady enjoys better health than she did before the attack of hydrothorax. She now has her catamenia upon her nearly three weeks out of every four.

In several cases of hemoptysis I have employed the sanguinaria with success. Females, it is known, frequently have

a discharge of blood from the lungs which is vicarious of the menstrual flux. In cases of this character no article of the materia medica possesses greater efficacy than the blood-root.

I have used this remedy repeatedly in jaundice, and the results of my trials with it have been highly satisfactory. Its applicability to this disease, suggested at first by the color of the root, is now no longer questionable. In all cases of jaundice depending upon a functional disorder of the liver, I should place my reliance upon the sanguinaria.

In intermittent fever, some physicians of my acquaintance regard this article as nearly equal in efficacy to the preparations of cinchona. As a general remedy in this disease I should not be disposed to confide in it; but there is a form of intermittent fever to which it appears to me to be well adapted. I refer to that which appears in the spring after an autumnal attack, and which does not depend directly upon miasmatic poison, but upon derangement in the chylopoietic viscera. In cases of this description I have used the sanguinaria with the happiest effects. In such cases it appears to me far superior to the preparations of bark.

This root ought not to be kept on hand too long. My impression is that after a year it loses much of its power, and I should therefore urge the employment of a fresh article.

I have used all the officinal preparations of sanguinaria, and have also given it in combination with iodine and iron, and several vegetable medicines. The compound of protoiodide of iron and sanguinaria is one which is applicable to a variety of diseases, and is capable of fulfilling important indications. I have also found the combination of sanguinaria and taraxacum a good one.

The use of sanguinaria is contraindicated by a plethoric state of the system, by an inflammatory tendency, and by gastric and intestinal inflammation in the acute stage. In subacute inflammation of these organs I have used the remedy with success.

If this indigenous medicine should turn out as successfully in the hands of others as it has proved in mine, I venture nothing in predicting that the time is not distant when it will be esteemed one of the most excellent articles of the materia medica.

Clifton, March 9th, 1847.

ART. III.—*A Medico-legal Case.* Reported by R. S. STROTHER, M.D., and C. P. MATTINGLY, M.D., of Bardstown, Ky.

The following case was tried at the last term of the Nelson Circuit Court, and as the verdict of the jury turned entirely upon the medical testimony given it is deemed worthy of publication. In April, 1845, Mr. S., of this county, sold to Mr. M., of Jefferson, a negro man, warranting him to be sound; the man was then, and had been for six months, in jail. Three days after the sale he died. S. sued for his money; M. pleaded unsoundness in the negro and obtained a verdict in his favor. The following is a condensed statement of the facts in the case proved by a number of witnesses.

The man was from 40 to 45 years of age, of middle height, large head, short neck, broad chest, and fine muscular frame. With this conformation he was remarkably strong and active. Those who had known him for twenty years had never heard of his having lost a day from his work in consequence of sickness. In this high state of health he was incarcerated, and kept in confinement for six months. The jailor testified that, while in jail, he had complained of pain in his head and side, for which a physician had been consulted. The physician stated to the jury that he had twice visited the man in the six months, that he looked upon his indisposition each time as simply the result of costiveness, for which nothing was needed but gentle laxatives. At the

expiration of the period he was sold as above stated, having a healthy appearance, considering himself well, and regarded as sound by all who saw him. He was taken from jail the day on which he was sold, and walked eleven miles without complaining of fatigue, keeping up with his master on horseback, and stopping to rest but once on the way. The day following he was put to labor at hard work, namely, ditching in a wet clayey soil, but was found incapable of executing a man's task. The next day he continued at the same work for several hours, but as he did not get on well his master, after threatening him for his indolence, put him to felling trees. While chopping later in the day he fell forward suddenly on his face, and, when the overseer who was close by went to him, was found insensible and speechless. His breathing was stertorous, and he frothed at the mouth. In this state he was carried to the house, and the family physician sent for. When Dr. L. arrived he pronounced the man in a dying condition; had his feet put into hot water; and attempted to draw blood, but none flowed. At 9 o'clock that evening he died, being about six hours from the time he fell down.

Thirteen hours after death Dr. L. made a partial examination of the body. He stated to the jury that he had examined the chest and abdomen, in which he found the following appearances: The heart was the smallest human heart he had ever seen, weighing, he thought, not more than four ounces, though he did not weigh it nor take it out of the body. One half was *tending to ossification*, and the other half was *mortified*, and so soft that he could have thrust his finger through it; he did not, however, cut into it, nor was he sure whether or not it contained any blood, but thinks it could not, as he did not *hear it rattle.* The percardium, according to the best estimate he could make, for he did not measure it, contained five gills of serum, and he informed the jury that any quantity over two drachms was evidence of disease. The smell of the cadaver was so offensive that all the persons

in the house, "but himself, were made to *puke;* he was accustomed to such things."

The lungs he found in a still worse condition. In parts they were so mortified that they fell to pieces when not carefully handled. He did not take them out nor make an incision into them. The pleura of the lungs adhered firmly to the pleura of the ribs. He looked into the stomach, found it empty, of an unhealthy color, and "the folds gone." The alimentary canal gave strong evidence of disease, and the *mesenteric glands* were very much *enlarged*, being about the *size of summer grapes.* The liver was of a dark color, and had some blisters on it. He did not examine the brain, but thought he discovered cause enough for the death of the man in the thoracic and abdominal cavities. He took no notes of the examination, and was not assisted by any medical man; he has since become the family physician.

Dr. P., who until lately was Mr. M.'s physician, arrived shortly after the negro died, and, from the symptoms related to him, pronounced the case apoplexy. Dr. L. testified to the jury that he did not look upon apoplexy as a disease! The physicians of Bardstown and its vicinity concurred in the opinion of Dr. P. They could not believe that it was possible for a man laboring under extensive disease of the heart, lungs, and bowels, to have gone through the labor performed by this individual; and all the appearances revealed by the autopsy they regarded as *cadaveric* phenomena.

The jury, however, thought with the doctor who did not consider *apoplexy* a *disease*, and returned a verdict accordingly. The appearances presented by the dead body, as so vividly set forth by Dr. L. outweighed the testimony of all the other witnesses.

This case, it appears to us, is instructive in many ways. We submit it to the profession without the comments which naturally rise to the mind.

Bardstown, March 24th, 1847.

REVIEWS.

Art. IV.—*Lectures on Subjects connected with Clinical Medicine: comprising Diseases of the Heart.* By P. M. Latham, M.D., Fellow of the Royal College of Physicians; Physician Extraordinary to the Queen, and late Physician to St. Bartholomew's Hospital. 8vo. pp. 365. Philadelphia: Ed. Barrington & Geo. D. Haswell. 1847. [Bell's Medical Library.]

Dr. Latham's name is already familiar to our readers as that of a correct writer, and an able and experienced author. His former volume of lectures on clinical medicine, introduced from abroad through Bell's Select Medical Library, was everywhere received with merited favor; and we feel certain, that the present volume is destined to a much wider popularity.

The diseases of the heart are among the most interesting that we are called upon to treat, and are those wherein the practical usefulness, not to say the absolute necessity, of a knowledge of auscultatory signs is most clearly shown. The stethoscope has disclosed to us that what was considered rare, is frequent; what was thought accidental, is constant; and what was known for the most part as a result and irremediable, is now for the most part obvious at its beginning, and while yet within the power of art. Until it was brought to bear successfully upon these affections, they were little else than matters of curiosity. Specimens of diseased hearts were collected and preserved in cabinets, and were gazed at by the curious, just as fossils were wont to be kept and looked at and gazed at in the cabinet of the naturalist. Or

they garnished museums of morbid anatomy, as trophies of the dead-house, speaking of pain and anguish and mortal suffering, though none could tell how or when; just as in the museum of the antiquary battered shields, broken lances, and cleft helmets, dug from some unrecorded battle-field, speak of the "drums and tramplings" of contending hosts, though none can tell how or when. Auscultation brought to the consideration of these diseases "a new light, and a new interest." Yet for a long time the practical benefit was small. It required the labor of years and of many minds—of such minds as gather up unconsidered trifles in the way of knowledge—to attain any profitable result.

"And at length the mark has been hit, and the prize has been won. For now there is no truth experimentally more certain than this, that auscultatory signs above all others, and oftentimes before all others, and oftentimes in the place of all others, may be safely trusted to declare the beginning and the augment, the decline and the cessation of acute inflammation in those structures of the heart, which are especially, if not solely, obnoxious to it; and that the same signs may be confidently appealed to as guides, by which to choose the remedy, and apportion its quantity and regulate its force, and continue or discontinue its application."

Dr. Latham, after a very lucid account of the sounds, impulses, and resonances of the heart, the mode in which they become signs of its disease, and the value of these signs, proceeds to the discussion of inflammation of the heart, and its connection with acute rheumatism. It is here we shall begin our quotations, as it is a subject of practical interest and one which we hope to compress within the necessary limits. He has found inflammation of the heart, in the form of endocarditis and pericarditis, separately or together, much more frequent in connection with acute rheumatism than it is generally supposed to be.

"Between the years 1836 and 1840, both inclusive, there

occurred under my care at St. Bartholomew's Hospital 136 cases of acute rheumatism:

"Of these 136 patients 75 were males, and 61 were females; of the 75 males the heart was affected in 47, and unaffected in 28.

"Of the 47, the seat of disease was the endocardium alone in 30; the pericardium alone in 3; and both the endocardium and pericardium in 7. And, while the heart was undoubtedly affected in 7 others, the exact seat of its disease was uncertain.

"Of the whole number of males in whom the heart was thus variously affected, 3 died. And in these 3 the pericardium and the endocardium were both inflamed.

"Of the 61 females, the heart was affected in 43, and unaffected in 18.

"Of the 43, the seat of disease was the endocardium alone in 33; the pericardium alone in 4; and both endocardium and pericardium in 4; and the exact seat of the cardiac disease was doubtful in 2.

"Of the whole number of females in whom the heart was thus variously affected none died.

"The account of males and females taken together will stand thus:—

Cases of acute rheumatism - -	136
Heart exempt in - - -	46
Heart affected in - - -	90
Seat of disease in the heart:—	
Endocardium alone in - -	63
Pericardium alone in - -	7
Endocardium and pericardium in	11
Doubtful in - - - -	9

Deaths 3. In all of whom both endocardium and pericardium were affected.

"Here are momentous facts, which go (I suspect) a good deal beyond the ordinary notions entertained by medical men of this matter. It is believed that among the sufferers of acute rheumatism, an individual now and then unluckily has his heart inflamed. The thing is looked upon as an accident which, if not very rare, yet is not very common. But it appears, from the event, not of a dozen or twenty cases merely, but of a number large enough to furnish the measure of what naturally belongs to the disease, that as many as two-thirds of those who have acute rheumatism also suffer inflammation of the heart.

"Further, the pericardium is popularly regarded as the special and most frequent seat of the inflammation which takes its rise from acute rheumatism. But it appears from cases sufficiently numerous, that endocarditis occurs nine times in acute rheumatism, for pericarditis once; that simple endocarditis constitutes more than two-thirds of all rheumatic cardiac affections, and simple pericarditis only one-thirteenth; and that pericarditis is more frequently found in combination with endocarditis than alone."

The lungs are also liable to suffer in acute rheumatism, and in rheumatic inflammation of the heart. It may be a bronchitis, a pneumonia, or a pleurisy, and in all cases puts on a serious character.

"Of the 136 cases of acute rheumatism which form the basis of our inquiry, inflammation of the lungs was found in 24. Here the proportion is about 1 in 5½. But *how* were these 24 cases distributed? What proportion of them occurred where the heart was unaffected, and what proportion where the heart was inflamed? And, again, what proportion, where the inflammation was of the endocardium alone; what, where it was of the pericardium alone; and what, where it was of the endocardium and pericardium simultaneously?

"Of the 46 cases of acute rheumatism in which the heart was unaffected, the lungs were inflamed in 5. Here the proportion is as one to nine. But of the 90 cases in which the heart was inflamed, the lungs were also inflamed in 19. Here the proportion is more than one in five.

"The 19 instances of inflammation of the lungs were distributed among these 90 cases of inflammation of the heart in different proportions, according to the part of the organ affected.

"Of the 63 cases of endocarditis the lungs were inflamed in 7. Here the proportion is as one to nine.

"Of the 7 cases of pericarditis the lungs were inflamed in 4. Here the proportion is more than one-half.

"Of the 11 cases of endocarditis and pericarditis simultaneously, the lungs were inflamed in 8. Here the proportion is more than two-thirds.

"What can we, or what can we not, conclude from this enumeration of facts? What general truths do they declare?

"We cannot conclude, from inflammation of the lungs being found in one case of acute rheumatism out of nine, that acute rheumatism has any strong natural tendency to inflame the lungs. Neither can we conclude, from its being found in one case of rheumatic endocarditis out of nine, that rheumatic endocarditis has a special natural connexion with inflammation of the lungs. The probability of inflammation of the lungs arising out of acute rheumatism is small; and the probability is not at all augmented by its alliance with endocarditis. For in acute rheumatism, inflammation of the lungs does not occur more frequently when the endocardium is inflamed, than when the heart is entirely exempt from disease.

"We find it to be between inflammation of the pericardium and inflammation of the lungs, and between inflammation of the endocardium and pericardium occurring simultaneously in the same subject, and inflammation of the lungs, that frequent coincidence seems to establish a natural connexion.

"That inflammation of the heart which is least perilous in itself is least liable to have its danger augmented by an union with inflammation of the lungs, viz: endocarditis; while that which is most perilous in itself is most frequently accompanied by inflammation of the lungs, adding immensely to its danger, viz: simple pericarditis, or endocarditis combined with pericarditis."

Endocarditis and pericarditis being the same in essence (inflammation), often occurring together in the same subject, and belonging to the same pathological condition, are to be treated by the same remedies. The treatment is either *preventive* or *curative.* The former consists in the proper management of the general pathological state out of which they arise. Acute rheumatism, it is well known, is successfully treated by the most various and opposite remedies. Some look entirely to the vascular system, and depend upon bloodletting; some to the nervous system, and rely on opium; some to the stomach and bowels and liver, and trust to calomel and purgatives.

"At the first view all this looks very strange. The cure, or seeming cure, of the same disease by different remedies.

even by remedies which in their mode of operation have nothing in common, appears like luck or accident. At the first view it may shake one's faith in physic a little, and may a little excuse the pleasantry of some who choose to hint, that Nature is our best friend after all; for do what we will, she brings things to a prosperous issue in spite of our blind inference.

"But without disparaging the part that Nature plays, I here see no fair subject of ridicule, and no fair reason for distrust of methods of rational treatment. The first maxim of all rational practice is, that Nature is supreme; the next, that Nature is obsequious. The end, whether bad or good, death or recovery, and every step and stage conducive to it, are the unquestionable work of Nature. But Nature, in all her powers and operations, allows herself to be led, directed, and controlled. And to lead, direct, or control for purposes of good, this is the business of the physician. But how to do it best, he has to exercise a choice of modes and means in every case, which, though never exempt from the possibility of error, becomes less fallible by the teaching of experience.

"This choice leads, and always will lead, to diversity of practice, which no way disparages, but rather tends to enlarge and to enrich the resources of our art."

Of these three modes, the author thinks that by opium better than that by bleeding, and that by calomel and purgatives better than either. His discussion of these we must omit, although it is both interesting and able. We cannot forbear, however, giving the following quotation in reference to bloodletting:

"Now, one chief hazard of large bleeding is from the shock it is apt to communicate to the nervous system; and it is this which we should especially seek to avoid, when we employ venesection in acute rheumatism. Venesection is often needed; needed for what no other remedy can perform towards the cure, and therefore not to be omitted. It is needed especially to abate high vascular action. But no such thing must be thought of as bleeding, and bleeding, until the large pulse becomes small, and the hard pulse soft. For, to bring about this, blood must be let flow to a terrific amount. Fulness and hardness of pulse are indeed express

characteristics of acute rheumatism, rising to superlative degrees, and enduring pertinaciously, and resisting stubbornly the power of remedies to pull them down. To abolish them at once or speedily in the severer cases, is hardly possible by any counteracting means which medicine can safely employ. They are above a match for them all, and they *will* endure their time. They are above a match even for venesection, unless it be pushed with a desperate hand, careless and reckless of new dangers to life."

After a full examination of these methods, both theoretically and practically, Doct. Latham insists that a mixed treatment—venesection, opium, and calomel—is the best for acute rheumatism, and the safest as a preventive of the cardiac affections.

"The practice which chooses and follows a single indication, and chooses and trusts to a single remedy, is indeed a plain and intelligible, but a harsh and subduing, practice. In cases of ordinary severity, if the entire disease is to be effectually reached and counteracted through the bloodvessels alone, a single venesection of large amount would be needed, or a venesection of smaller amount once or twice repeated. If through the nerves alone, four or five grains of opium would be needed in each 24 hours. If through the abdominal viscera alone, a large dose of calomel and a draught of senna and salts would be required night and morning for three or four successive days.

"Here is much violence done and felt as the price of success. Venesection, single-handed, to do its work successfully, must strike with the violence that shocks, opium with the violence that oppresses, calomel and purgatives with the violence that hurts and irritates. It cannot be otherwise. If one remedy is to do all, it must be heavily charged and resolutely driven home to its purpose.

"But each remedy may be charged with less force, if one be made auxiliary to the other. Bloodvessels, and nerves, and abdominal viscera may be severally spared the shock, the oppression, and the pain, if they are subjected simultaneously to their several remedies. Thus, in cases of ordinary severity, a single moderate venesection instead of several, or instead of one of large amount, two grains of opium distributed over twenty-four hours instead of four or five grains,

moderate doses of calomel followed by purgatives instead of very large doses given and repeated for three or four successive nights and mornings, comprise a treatment powerful enough, and always safe, and generally successful, and not painfully felt. Perhaps it would come pretty near the truth to say, that two-thirds less of blood-letting, two-thirds less of opium, two thirds less of calomel and purgatives, are needed when they are all made confederate for the cure of acute rheumatism, than when any one of them is employed alone.

"In several cases, however, the proportion of the remedies to each other would vary. Sometimes more, sometimes less, blood-letting would be called for, and often none at all. So, too, more or less opium, and more or less calomel and aperients.

"I have remarked of the effect of blood-letting in acute rheumatism, that it belongs to it rather to render the disease more curable by other remedies than to cure it itself. Blood-letting, therefore, properly takes the lead of other remedies in point of time. For if it be necessary, the whole treatment must tarry, and other remedies come short of the good of which they are capable, until it is performed. On the first view, then, of the patient, the immediate question is: Should he be bled? and if so, to what amount? This question it would be foolish and dangerous to pretend to settle anywhere but in the wards of a hospital, and with the very patient before you, and your finger upon his pulse. Well! and what then? Why! then, if you judge that there is more force of circulation than calomel and purgatives operating upon the bowels, aided by the soothing effects of opium upon the nervous system, will be able to abate, you may bleed.

"This is the best direction I can give. But, be it the best and wisest that can be given, it must be utterly useless, nevertheless, except to those who are or shall be constantly busied about the sick. For by this direction, whether to bleed or not to bleed is made to wait upon a judgment which must first be formed upon two points. And these two points nothing but the most constant bedside experiments can make sure of. They are these—the exact force of the circulation, in a particular instance, to be ascertained by the pulse; and the probable power of calomel, and purgatives, and opium to reduce it, to be estimated by the ordinary effects of the same remedies.

"I do not wish to exaggerate the difficulties of medical practice; neither do I wish to conceal them. I am sure you

will never surmount them, unless you first feel and acknowledge them. And some practical experience is needed even for this.

"When from the pulse I have considered venesection necessary to bring down the circulation, the loss of between twelve and sixteen ounces of blood has generally been enough to answer the purpose in view; and the venesection has seldom been repeated.

"The opium, and calomel, and purgatives I have been accustomed to give in combination thus:—With calomel administered at night, according to its quantity, I have united more or less of opium. To ten grains of calomel I have added one grain of opium; or to five of calomel I have added half a grain, continuing to give them together in the same proportion, night after night, as long as they were needed. Then, on each succeeding day, when a large purgation of the bowels has been duly obtained, I have still given the opium alone, or with saline draughts, in doses of half or one-third of a grain, every five or six hours. And thus, with the larger quantity at night, and the smaller quantities during the day, about two grains of opium have been commonly taken in the course of twenty-four hours.

"Here, then, the vascular system, and the nervous system and the abdominal viscera are all at the same time made to feel sensibly the impression of the remedy, but none of them is subdued by it. And while blood-letting, and opium, and calomel with purgatives are all made confederate for the cure of the disease, none of them is given in excess.

"Now, I do not pretend to say, that this is just the measure, and just the relative proportion in which these several remedies need always to be employed for the cure of acute rheumatism. There are circumstances which would require them to be varied. But, apart from the patient, they cannot be represented intelligibly. As of venesection, so of these other remedies, after the propriety of their use is already understood, the skill of using them remains to be learnt; the skill which sees when to give a little more, and when a little less, oftener or seldomer—when to bear heavily or lightly on the bloodvessels, when heavily or lightly on the nerves—and when to obtain larger or smaller purgation of the abdominal viscera. This is the skill which cures diseases and saves lives. And no man ever had it, who did not obtain it from his own self-teaching amid the emergencies of actual practice."

Colchicum cannot be trusted in the severer cases, but may be in the milder ones. Even in the latter it is slow, and does no good unless it acts "in the first degree of its poisoning power," viz: purging smartly and painfully. Still the author employs it in special emergencies, with a trust and confidence he has in no other remedy.

"When by venesection and by opium and calomel with purgatives, excess of vascular action, and fever and pain and swelling are abated, yet none of them are entirely abolished, but all still linger; or when pain and swelling do not subside at all in proportion to the abatement of vascular action and fever, which are considerably reduced, then I invoke the aid of colchicum, and give twenty or five-and-twenty minims of the wine of the seeds or the root, twice or thrice a day, and I often find the disease proceed uninterruptedly to its cure.

"Again, when by the same ordinary course of treatment fever, pain, and swelling have been made to cease entirely, and have suddenly and unexpectedly returned, then I invoke the aid of colchicum, and give it in the same way; and a few doses are commonly enough to dissipate the returning disease, and restore the conditions of health. This is a pure case of relapse. The relapse, however, very seldom reaches the severity of the original attack.

"Now on all such emergencies I have been accustomed to administer the remedy quite alone, uncombined with either alkali or opiate, so that the benefit which has resulted has been without question exclusively due to it; and not only exclusively due to it, but due to it purely as colchicum in virtue of that mode of action, (whatever it may be) which specifically belongs to it. For the cure has followed suddenly, and not waited for any immediate operation of the remedy upon the stomach and bowels."

These same remedies—bleeding, opium, and calomel—must be used when inflammation of the heart is *actually* present; "but bleeding in different modes and measures, mercury directed to a totally different purpose, and opium given with more than one single intention." Some of the circumstances and conditions of actual practice in which we meet with endocarditis or pericarditis, are thus noticed—

"Take a case which you have watched and treated day after day; a case in which day after day you have examined and listened to the chest, fearing and guarding against surprise, and have felt all possible confidence that hitherto the heart is free. In such a case pain arises, distinct and sudden pain in or near the præcordial region; or the heart suddenly begins to beat with excessive impulse; or the heart, as if struck with weakness, suddenly begins to flutter and act irregularly. But withal your ear detects neither bellows-murmur, nor sound of attrition. What then are you to think of the disease, and what to do? You are to conclude that inflammation is begun in the heart, and you are to take measures to subdue it without a moment's delay.

"Pain in the heart; excessive impulse of the heart; irregular action of the heart; any one of these, or any two, or all of them together, coming on in the course of acute rheumatism make inflammation of the heart so nearly certain, that it would be folly to suspend the remedy by waiting for more certainty, and so running the hazard of having a more advanced and less tractable disease to deal with.

* * * * * * *

"Take another case of rheumatism, in which you have been daily upon the watch for the least sign of evil befalling the heart, and hitherto have found none: no pain; no excess of impulse; no irregular action. In such a case, when you least expect it, you may hear something unusual in the heart. It may be its systolic sound prolonged in an undue degree, or a little harsh, and nothing more. Yet this, if it be really so, even this alone is enough to call for instant measures to subdue inflammation of the heart. For it is almost certain that, by to-morrow, this sound, a little more prolonged, and a little harsher than natural, will become a genuine bellows-murmur, and declare the sure existence of endocarditis.

* * * * * * *

"Take another case of rheumatism, in which neither præcordial pain or excess of impulse or irregular action have hitherto drawn attention to the heart, nor do they now. But now your ear may begin to admonish you of something belonging to the heart, which was not there the last time you listened: a sound which is no modification of what is found in health, but is entirely new, and unnatural. This sound may be as yet audible in so small a space of the præcordial region, that, of several who have been carefully listening to the patient's chest during the last half hour, one only has happened to light upon it. Yet is it so sure and certain a

reality, that no sooner is attention pointed to the spot, than all can hear it, and all have no doubt of it. The sound is an indefinite sound still; each person who hears it likens it to something different. It is not such as can fix disease either upon the endocardium or the pericardium. But coming on in the course of acute rheumatism, it must be taken for an announcement that all is not right in the heart, that it has begun to suffer after the manner to which acute rheumatism renders it obnoxious, and that it is already in a state of inflammation. Therefore the remedy must no longer tarry. Ere a day is gone, this indefinite sound will be changed into an endocardial or exocardial murmur.

"Take yet another case in which, from the absence of all symptoms referable to the heart, you believe it to be hitherto unhurt. You listened perhaps a few hours ago, and still found nothing to excite suspicion. And now listening again you hear the endocardial, or you hear the exocardial, murmur completely formed. These sounds, being the concomitants of acute rheumatism, announce at once inflammation of the heart, and fix its seat either in the membrane that lines it within, or the membrane which invests it without. Here nothing is wanting to the instant and complete disclosure of the disease; and nothing should be wanting to the immediate and efficient treatment of it.

"These are the ways in which I have seen endocarditis or pericarditis begin, when I have witnessed their beginning. Things different in kind, a pain, an impulse, or a sound; things great or small, palpable, or hardly discernible, and never discerned but by the practised sense, have given the first authentic notice of these awful diseases. Therefore the eye, the ear, and every sense and faculty which can convey intelligence of what goes on within a man should be kept upon the watch for these things."

When any of these signs appear, our treatment should be directed to the heart. This *curative* treatment is thus sketched:

"As soon as inflammation is known or suspected to have reached the heart, mercury must be given without delay. Or should mercury be already in use, as a remedy for acute rheumatism, with the intent of obtaining large evacuations from the bowels, it must at once have a new direction given to it. The irritation it has produced within the abdomen must by all means be pacified, and its constitutional impres-

sion must now alone be thought of,—that impression, of which salivation is the best evidence, of which (as far as we know) it alone, of all remedial substances, is properly and exclusively capable, and which under favorable circumstances, is largely counteractive of inflammation.

"But, inasmuch as that impression of mercury, or salivation, which is the best evidence of it, cannot be commanded within any given time, you must be content to administer it in the manner calculated for this purpose, and wait the event. For no judgment can be formed of its curative effect upon the disease until salivation arrives. And it may arrive in a day or two, or not until after several days, or after a week, or after several weeks, or it may not arrive at all.

"You must give mercury, then, and wait until salivation come to tell you what it has done for the disease, or until it is fair to conclude there will be no salivation. And it does, I confess, require strong confidence in this great remedy, thus to give it, and thus to wait for its ultimate effect, when in the meantime it displays no proximate or intermediate effect as an earnest of its curative operation.

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"With respect to venesection, if in acute rheumatism, any of those symptoms referable to the heart are present, which have been already mentioned, auscultatory or non-auscultatory, and especially if they have arisen under your own observation, or, though not under your own observation, if they be now present, and you have reason to believe that they have *recently* arisen, then, should the pulse be found to have even a notable degree of that hardness which is deemed inflammatory, blood must be taken from the arm. Should there be any doubt about venesection, any misgiving whether the inflammatory hardness of the pulse is quite enough to require it, let it be employed nevertheless. There is greater hazard in omitting it wrongfully, than in practising it wrongfully.

"But with the same amount of vascular action evidenced by the state of the pulse, in a case of mere rheumatism, in which the heart was not affected, venesection would be neither necessary nor proper.

"Again, if in acute rheumatism, with symptoms referable to the heart and those recently declared, fever and vascular action run very high, and there be extreme fulness and hardness of the pulse, a copious venesection should be practised. And the same should be repeated, were the hardness and fulness of the pulse found not to yield. And repeated again

and again, until the hardness and fulness of the pulse were much abated.

"With all this fever and inflammatory action, and all this hardness and fulness of the pulse, had the case been one of mere rheumatism, and the heart unaffected, venesection would have been properly employed, indeed once or even twice, but it would not have been carried further for reasons formerly assigned. Now, however, more danger is to be feared from the progress of inflammation in the heart, than from any shock imparted to the nervous system by loss of blood.

"But though the disease be inflammation, and the organ inflamed be a vital organ, even the heart, bleeding must have a limit; for bleeding cannot alone be trusted to cure the disease. Mercury must become its auxiliary. And if for no other reason than to obtain from the mercury a fuller curative operation, bleeding must have a limit.

"Looking, as I do, mainly to mercury to save life or to save the organ, I am constantly careful in the management of every case to do everything to aid, and nothing to hinder its curative operation. Especially in the use of venesection, I bear this in mind; for sure I am that loss of blood can both aid and hinder it according to its amount.

"In men of florid aspect and full blood-vessels, though *bleeding* has not been needed for its own sake, yet has it oftentimes been *moderately* used for expediting the sensible effects of mercury. And the sensible effects thus induced have been at the same time curative. But, if the body be first made exsanguine by the lancet, you may gain the *sensible* effects of mercury, and lose the curative; for the two do not of necessity go together.

"As mercury can be less trusted for its antiphlogistic power in those who either naturally or from some previous disorder are pale and anæmic, so in the robust and sanguineous if you would have mercury exercise that power it has for the control of inflammation, you must beware of *making* these what the others *are*. You must hold your hand from excessive venesection. In inflammation of the heart you must not first change a fine ruddy countenance into the aspect of a chlorotic girl, and then leave mercury to complete the cure without anxiety or distrust of the event.

"Recollect, then, that in rheumatic inflammation of the heart, whether it be endocarditis or pericarditis, blood-letting by venesection is to be little in one case, and much in another, according to the present force of vascular action

throughout the body; and little or much respective to its own proper benefit as a remedy; and little or much respective to its secondary uses in procuring the more effective operation of mercury. And recollect, moreover, the cautionary admonition applicable alike to the management of this and of all diseases in which a large share of the cure is confided to mercury, recollect, not to lessen or to lose its curative operation, either by bleeding too little or bleeding too much; for plethora and anæmia are alike obstructive of it.

"But there are other modes and means of blood-letting besides venesection. There is cupping, and there are leeches.

"Now in rheumatic inflammation of the heart, cupping or leeches, or both, may be needed as auxiliary to venesection; or exclusive of venesection, they alone may be needed and trusted for taking as much blood as the nature of the case requires.

"As it often happens to other organs when they are inflamed, so also to the heart, that when general vascular action has run high and venesection has been employed to reduce it, and *has* reduced it effectually, the local symptoms will remain altogether, or almost, unmitigated. Thus pain and palpitation of the heart, and unnatural sounds, often abide in the same degree, or nearly so, after venesection as before it; and then cupping or leeches come in as effective auxiliaries, and the local bleeding often makes at once an appreciable impression upon what the general bleeding has not touched.

"Again, as in other parts of the body, so in the heart, it is no uncommon thing for inflammation to begin and proceed onwards to destructive disorganisation *without being felt as an inflamation* by the constitution at large. It imparts no special hardness to the pulse, and no extraordinary force to the circulation, yet is it working its own injurious changes locally: palpitation, or pain, or irregular action, or unnatural sounds, declare as much. Here all that blood-letting can compass for the relief of the disease and its symptoms will be attained by cupping, or by leeches alone.

"Now there is a choice between cupping and leeches. One may be a more appropriate remedy than the other in a particular case; and yet I dare hardly trust myself, apart from the patient, to point out what it is that should determine you to prefer one to the other.

"So dexterous are those who are well practised in the art

of cupping that they can make their glasses draw a given quantity of blood in almost as short a time as the lancet; whereas leeches are long at work in taking away the quantity you desire. Therefore, upon the principle of requiring in the remedy a force and rate of operation proportionate to the force and rate of the disease, I should say that when the pain or anguish, or by whatever name you may call the distress, immediately referable to the heart, begins suddenly, is at once felt severely, and augments rapidly, then cupping is the remedy; but that, when it comes on by little and little, and increases slowly, and has not reached a great amount, then leeches are the remedy. But leeches are often needed as auxiliary to cupping, just as cupping is to venesection.

"There is another thing worth mentioning as to the use of these remedies. When I have employed cupping in inflammation of the heart, I have been accustomed to have the glasses applied between the left scapula and the vertebral column. Applied upon the præcordial region, they have seemed to me to cause peculiar distress, and to be not without the hazard of doing mischief and violence to the heart in its present condition; for recollect that *now* a slight percussion upon the cartilages of the ribs, or any degree of pressure which shall carry them ever so little downwards towards the heart, will often occasion pain. Besides, blood taken from between the scapula and the spine produces all the relief to the heart which could be expected.

"But we must come nearer yet to the bedside of the patient, and look still more closely into the immediate effect of blood-letting in inflammation of the heart. Its effect, day by day, is the earnest of its ultimate effect. The sensible impression of each venesection, or of each cupping, or of each application of leeches, is a measure of the good they are doing, and of the trust to be reposed in them as remedies. But what is this effect which is to be looked for day by day?

"In inflammation of the lungs or pleura, blood-letting shows its favorable impression by setting free the respiration and diminishing pain. In inflammation of the brain, by abating delirium, or coma, or spasm, by restoring clearness to the sense, and intelligence to the mind; in inflammation of the peritoneum, by softening the tense abdomen, and making it more patient of pressure. And if the heart be inflamed either within or without, any of the several modes of blood-letting will denote itself to be exercising a curative power upon the disease, when it moderates pain, or when it mode-

rates excessive impulse, or when it renders its beats regular again, which were irregular before. Thus it is in the sensations and functions of the heart as of other organs, that we see the benefit which blood-letting is doing, or is ultimately to do, towards the cure of its inflammation.

"Next as to the use of opium. It indeed is needed now that the heart is inflamed, to calm the nervous system, and to abate pain, as it was needed before; and moreover, it is needed for another purpose, viz: to give effect to the operation of mercury in one mode at least of administering it.

"If in aiming to produce salivation you give calomel internally, you must restrain it from running off by the bowels: and this can only be done by opium. Opium must be combined with every dose of calomel, and the quantity of each must be proportioned to the other. Thus, perhaps, we shall generally find ourselves compelled to give more opium for the purpose of keeping the bowels patient under the stimulus of calomel, than we should give merely to soothe the nervous system under the general irritation of the disease. But, as the remedial operation of mercury is not now under consideration, it is unnecessary to say more at present of opium as its adjunct and auxiliary.

"Besides, however, these, its common uses of calming the nervous system, and abating pain and aiding the effect of mercury, opium has its extraordinary uses for extraordinary emergencies. In endocarditis and pericarditis, not always, but most commonly, pain is present; pain of the heart varying in amount, and upon the whole abiding, yet allowing remissions and abatements. But whether the customary pain be present or no, a sudden agony will sometimes seize the heart, and at once the patient will feel and look as if he had received his death -blow. It is like a spasm of the heart. It is no other than a paroxysm of angina pectoris. This terrible seizure attends pericarditis more frequently than endocarditis, and where it has once occurred, it is apt to occur again. Its only remedy, as far as I know, is a large dose of opium. Opium is the only means of rescue during the agony, and the only safeguard against its return."

The author places great reliance on the use of mercury in these affections, chronic as well as acute; and he discusses the subject of its employment at very considerable length. We must pass by all this with the following extract:

"Mercury, as a remedy for inflammation, requires to be administered with as careful an adaptation of its dose to the exigencies of each particular case, as bleeding does of its mode and quantity. The principle of practice is this, to measure the force and rate of the counteractive impression to be produced, whether by blood-letting or by mercury, by the force and rate of the disease. If you have an inflammation of the greatest force and greatest rapidity to deal with and organic changes are taking place from hour to hour, and blood-letting is to be your remedy, its mode must be by venesection, and its quantity must be of large amount; and it may need to be repeated again and again, and at short intervals. The blood-letting must make itself felt with a force and a rapidity which shall exceed the force and rapidity of the disease, otherwise it is no remedy at all. So, too, in the same conditions of inflammation, if mercury is to be your remedy, its dose must be large, and repeated. Calomel must be given in the dose of half a scruple at once, and again after six or eight hours. The patient's life may depend upon his being salivated within a couple of days. The mercury, like the blood-letting, must make itself felt, by its specific effects more forcibly, and more rapidly, than the disease, otherwise it will fail of its counteractive operation.

"But if the inflammation be of little force, and slow in its progress, and its organic changes such as are not visible from hour to hour, or even from day to day, but rather from week to week, then, if your remedy be blood-letting its mode must not be by venesection, but by cupping or leeches, and its quantity must be small, and, if it be repeated, it must be at more distant intervals. For now it is essential to the cure that the counter-impression of the blood-letting should be kept down to the small measure of power, and the slow rate of progress, belonging to the inflammation; otherwise it is no remedy at all. And in like manner, if mercury be your remedy, it mst now be given more sparingly and less frequently. The object is to produce salivation, not as soon as possible, but slowly and without surprise or violence. A grain or two of calomel once or twice a day, or even some milder preparation of mercury, will bring its specific effects to bear upon the disease after many days, but still remedially."

Touching the curability of hypertrophy of the heart, Dr. Latham's experience is opposed to that of many physicians.

He has never yet met with a single instance in which he was satisfied that a cure was effected. In the cases reported as cured, the disease was only counterfeited.

"I am well aware that there is a mock hypertrophy of the heart bearing so close a resemblance to the true, that I should find no fault with you for being taken in by the counterfeit.

"There may be violent impulse of the heart, felt not only in the præcordial region but in every part of the front of the chest upon which you lay your hand; and there may be pain in the heart, and pain and throbbing in the head; and all these may be never absent and often aggravated from time to time by accidental circumstances; and they may continue from first to last for several months, or for several years, and produce in the meanwhile an incapacity of all useful exertion both mental and bodily: all these may be, and yet there be no hypertrophy.

"Impulse of the heart, taken alone, however great and however extensive it may be, is not a sure physical sign of hypertrophy. Hypertrophy indeed cannot exist without excess of impulse, but excess of impulse can exist without hypertrophy. When the impulse of the heart is excessive, and at the same time its sounds are obtuse, muffled and indistinct, and the præcordial region presents a larger space than natural which is dull to percussion, then the signs of hypertrophy are complete. And hypertrophy so sure and unquestionable was never cured within my experience. But when the impulse of the heart is in excess, and at the same time its sounds are as loud and clear as ever, or louder and clearer still, and the whole præcordial region is quite resonant to percussion save the small space which is naturally dull, then the signs of hypertrophy are incomplete. Yet if this be enough to constitute hypertrophy, I have seen and treated it successfully in a hundred instances. But in the meantime I have not thought that I had to do with any such affection or ever claimed the least credit for curing it.

"Cases of mock hypertrophy of the heart are indeed very numerous. Young persons at the prime of life are especially the subjects of it. They are often plethoric and often sedentary, and can assign the origin of their complaint to no particular time and to no particular exciting cause. In them the excessive action of the heart is doubtless owing to a rich

and redundant blood; and the cure of their simulated hypertrophy is effected by depletion and abstinence and the gradual exchange of indolent for active habits. These are easy cases to deal with.

"Again, young persons are the subjects of it, but they are often pale and thin and dyspeptic and very sensitive, and inactive from mere debility and nervousness. In them the excessive action of the heart cannot be ascribed precisely to any one thing. The stomach and the nerves and the blood itself are all disordered, and they all are sources from which injurious influences may spring up and travel to the heart; and they all have probably their share in producing the simulated hypertrophy. Being so produced its cure can only be effected by varied methods of treatment and after a long time, and often not until the constitution has undergone some of those changes which belong to stated periods of life.—These are by no means easy cases to deal with.

"Again, young persons are the subjects of it, but they are often neither florid nor pale, neither too full nor too empty of blood. They have no complaint that they can tell you of, and none that you can make out, except an inordinate impulse of the heart; an impulse great enough for any amount of hypertrophy, and constantly present, and admitting of severe aggravation, and ever attended with pain, while the sounds of the heart are still loud and clear, and the præcordial region is still duly resonant."

We close our meager notice here although it is neither adequate to the merits of the author, nor a just measure of our appreciation of them. We commend the book most heartily to our readers, as one of high value, and not less pleasing than valuable.

BIBLIOGRAPHICAL NOTICES.

ART. V.—*Encyclopædia Americana: Supplementary Volume. A Popular Dictionary of Arts, Sciences, Literature, History, Politics and Biography.* Vol. XIV. Edited by HENRY VETHAKE, LL.D., Vice-Provost and Professor of Mathematics in the University of Pennsylvania; Member of the American Philosophical Society; Author of a Treatise on Political Economy, etc. 8vo. pp. 663. Philadelphia: Lea and Blanchard: 1847.

The Encyclopædia Americana, published a number of years since, is so well known and so highly approved, that no higher recommendation of the supplementary volume is needed than to say, that it is worthy of a place by the side of its compeers. Every one who possesses the original work will be desirous of procuring the supplement, in which he will find a large and varied fund of useful information on biography, politics, history, literature and science.

ART. VI.—*Philosophy in Sport Made Science in Earnest;* being an attempt to Illustrate the First Principles of Natural Philosophy by the aid of the Popular Toys of Youth. From the sixth and greatly improved London edition. 12mo. pp. 432. Philadelphia: Lea and Blanchard: 1847.

The title of this little book is attractive, and its external appearance is fully as much so; the publishers have sent it forth in a beautiful dress. Philosophy ought to be made pleasing to youth, for in itself we hold with Milton, that it is "not harsh and crabbed as dull fools suppose." The mind naturally craves knowledge, and the youthful mind is especially inquisitive and

active. It must therefore be the fault of the systems in vogue, that learning is felt to be an oppressive task, instead of an ever recurring, exhaustless pleasure. How far the author of this enterprise has succeeded in making philosophy a pastime for youth, we are not able to say from any thorough examination of his book, but it is much in its favor that it has passed through so many editions. Any scheme which promises an alleviation of human suffering, such as that endured by children at school, we hold to be worthy the consideration of every philanthropist, and such is the aim of the anonymous little volume before us.

Art. VII.—*A System of Human Anatomy, General and Special.* By Erasmus Wilson, M.D., Lecturer on Anatomy in London. Third American from the third London edition. Edited by Paul B. Goddard, A.M, M.D., Professor of Anatomy in the Franklin Medical College of Philadelphia. With 233 Illustrations by Gilbert. 8vo. pp. 610. Philadelphia: Lea and Blanchard: 1847.

This beautiful work, it will be seen from the title-page, has already reached the third edition in this country, although it is but a little while since the first was issued. It needs no commendation from the press; its character is established.

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

Inhalation of Ether. French Academy of Sciences.—At a late meeting of the Academy of Sciences several communications were made relative to the effects of the inhalation of ether and some discussion ensued, in the course of which M. Majendie repeated his opinion that this new method of operating ought to be practised with the greatest possible caution and reserve. M. Majendie brought forward some further arguments in defence of his opinion, but they throw no new light upon the question. We shall proceed, therefore, to give an account of some experiments on the new method which were this day communicated to the Academy. M. Flourens stated that he had made experiments to ascertain the effect of the ether upon the spinal marrow. In the first place he caused the ether to be inhaled by a dog, which in a few minutes became perfectly insensible. He then laid bare the spinal marrow at a point of the dorsal region, and during the whole of this cruel operation the animal gave no sign of pain. He then divided the nerves of sensation, and still no pain was manifested. Lastly, he pricked, cut, and tore the spinal marrow itself, and the dog did not give the slightest symptom of suffering, and experienced no convulsion. His next experiment was on a fowl, and with the same results. When the effects of ether were dissipated, the spinal marrow resumed all its vitality. M. Serres announced that he had made several experiments upon animals, but with liquid ether, as he was desirous of ascertaining its effects upon the nervous system. He had laid bare the nerves of the thighs of several rabbits, and placed them in contact with a sponge dipped in ether. The results were as follow:—Sensibility

was abolished in the nerve subjected to the action of ether at the points immediately in contact with it, and in all the radiations emerging from the nerve under that point; but the entire sense of feeling remained in the portion of the nerve above the point immerged in the ether. In order to take into account the action of the air, the following comparative experiment was made. Of two nerves which were laid bare, one was immerged in the ether, and the other was exposed simply to the action of the air. Five minutes afterwards the first was dead to all sensation, even on the application of pincers, the second retained all its sensibility and powers of contraction. Having thus ascertained the sedative power of the ether, M. Serres resolved to discover whether the sensibility could be restored by the immediate application of strychnine to the nerve which had been deprived of it. He applied the tincture of nux-vomica, strychnine, and the chlohydrate of strychnine, and all without effect. They produced neither sensibility to pain, nor restored the power of contraction.

A paper was read, giving an interesting account of some experiments made by M. Gruby, to ascertain the effects of ether on several animals, viz: 10 dogs, 4 rabbits, 2 mice, and 50 frogs. To intoxicate these animals required different periods of time, which are shown in the following table:—

	Minimum.	*Maximum.*	*Duration.*
Frogs	8 m.	35 m.	20 to 25 m.
Dogs	50	40	12 to 30
Mice	2	4	4 to 8
Rabbits	2	8	6 to 12

In general, says M. Gruby, the duration of the intoxication appeared to depend on the intensity of the vapor, the prolongation of the aspiration, the rapidity and force of the inspiration, and the age of the animals. Beyond the term above fixed for respiration the animals died in a sleep. In young animals the phenomena were more prompt than in those which were full grown. M. Gruby found that the peripheric circulation, the pulsation of the heart, and the respiration diminish under the influence of the ethereal vapor, and that, if after the experiment the animal be exposed to the air, the number of pulsations of the heart and the inspiratory motion augment considerably, as does also the cutaneous circulation. Frogs which were wounded immediately before the experiment resisted the intoxicating efforts of the ether much longer than those which were uninjured. He ascer-

tained also that the stagnation in the capillary vessels produced by the ether disappears before sensibility is again manifested, and that a frog deprived of its brain, and exposed to the vapors of ether, retains its sensibility and its powers of contraction much longer than one that has not been wounded. The experiments on dogs showed that they first lose their tactile peripheric sensibility, then voluntary motion, and finally the contractibility of the voluntary muscles. Dogs twenty days old lost their sensibility in three minutes, and died in eighteen to twenty minutes, under the effects of the ether; grown-up dogs lost their power of sensation in eight minutes, and died if the action of the ether was continued for forty-five minutes. The dogs recovered their sensibility and motion when they were exposed to the air, if the experiment with the ether was not prolonged beyond eighteen minutes for the young, and forty to forty-four minutes for adults. Young dogs which were apparently dead, having ceased to breathe, were brought to life by copious bleeding from the jugular vein. A young dog, which had already been under the effect of the ether and had recovered, was again exposed to it, and the same effect was produced in fifty seconds; but a dog which had been bled after the experiment, and was again exposed to the ether, resisted much longer than another dog which had not lost blood. In the cases where the experiment was carried to such a point as to produce death, M. Gruby found that the immediate cause of death was an accumulation of blood in the veins of the brain, those of the lungs, the liver, &c.

Several letters were received from surgeons giving account of successful operations, without pain, after the inhalation of ether.

A letter was received from M. E. Cotterau, informing the Academy that he has succeeded in producing an explosive powder from starch, by adopting nearly the same process as with cotton. This, however, was already known to chemists.—*Paris Press. D. W. Y.*

Treatment of Aphthæ.—Professor Lippich, of Padua, uses with advantage the following application in the treatment of aphthæ: Honey, 15 parts; sulphuric acid, 1 part (by weight). The mixture is applied by means of a camel's hair brush to the aphthous ulcerations.—*Gaz. Méd.—Ranking's Abstract.*

Observations on Croup—A paper read before the Fellows of the College of Physicians and Surgeons, by ALEXANDER H. STEPHENS, M.D., President of the College.

The frequent occurrence of croup, and its not unfrequent fatality in the northern and maritime regions, especially those of the United States, render important every addition to our knowledge of the nature and treatment of this formidable disease.

Up to the time of Dr. Bayley, of New York, no modern writer appears to have entertained correct pathological notions of this malady. It had previously been confounded with anginose affections of the fauces. It was, however, known to Hippocrates, who describes it in these remarkable words: "Ab angina homo suffocatur, oculi affecti sunt, ac velut strangulatis prominent; facies et fauces incenduntur, imo etiam collum intumescitur, vero nihil mali habere videtur."

We owe to the late Dr. Hosack of this city, the best description of the various stages of croup, and probably the best practical directions for the treatment of it. Yet, there are important points both of pathology and practice which he leaves wholly untouched, and others in which, if I am not mistaken, he is inaccurate.

It is usual among the medical men of this city, to speak of genuine croup, meaning that in which a membrane is formed in the trachea, and of spasmodic croup, many of them believing that inflammation either does not exist at all in the latter species, or that it is not the prior or primary morbid condition. These views I hold to be erroneous, and if carried out in practice, highly dangerous.

Professor Ware, of Boston, (the most recent writer on croup,) has recently presented another view on the subject, in a well reasoned paper, wherein he records numerous cases and dissections, showing how little that it is truly valuable to the American physicians in relation to croup, is to be found in European publications, more especially among the continental writers, or rather, how far they fall short in establishing those rules of practice by which alone, the American physician can successfully contend with the formidable malady. I am led to infer that it may present itself under different aspects in different regions. Be this as it may, the division of croup, proposed by Professor Ware, into four species, viz: catarrhal, membranous, inflammatory, and spas-

modic, does not accord with my own experience, or with that of the most sagacious and experienced practitioners in this city, with whom I have conversed on the subject.

The forms under which croup has presented itself to my observation in this city, during a period of more than thirty years, are the following:

1. A child with coryza and occasional cough of the ordinary character, as in bronchitis, is playing about without sore throat, or redness of the fauces, or glandular swelling. He appears more than usually animated, his countenance, especially his eye, is unusually bright, and his mind exhilarated. His skin at this time is not heated during the day, but rather harsh to the feel and dryer than natural. To an acute observer with a nice ear, his voice will be a little sharper than usual, and if he cries for a time, the peculiar inspiration will excite alarm. On the second or third night the attack of croup commonly comes on after a few hours sleep, the symptoms being a ringing cough, hoarse inspiration, and great roughness of voice. If the patient dies, a membranous formation is found in the trachea, and more or less in the bronchial tubes. This is what all admit to be genuine inflammatory croup.

2. Without any noticeable illness whatever, a child suddenly wakes up in the night with spasmodic suffocating cough of the peculiar croupy sound, the same inspiration as in the former case, and the same hoarseness of voice. A drink of some kind is given; the next cough is less sonorous, but the croupy symptoms as before described remain. The case is usually relieved by an emetic and some stimulating application to the throat, both of which are kept for that purpose in almost every well regulated family in the city, where there are many children under eight years of age. If not so relieved, the patient may die within twenty-four hours or less, or after a lapse of two or three days, or even a week. Where the disease terminates quickly in death no well formed false membrane is seen, but only mucus in the trachea more or less thick, and redness about the glottis. This is the form to which the term spasmodic croup has been given. Spasm of what? Of the glottis undoubtedly, and from what cause? From the presence of vitiated secretions, and undigested decomposed food in the stomach, it is answered, and how does this act? By sympathy? Now, this cannot either be proved or even rendered probable. It is true, when the stomach empties itself by vomiting, the symptoms, for a time at least,

and often permanently are relieved, but vomiting does more than unload the stomach. It relaxes the system, reduces the action of the heart, determines the fluids to the skin, which possesses so remarkable an antagonism to the mucous surfaces —above all it induces a copious secretion from the fauces, and thereby unloads the congested vessels of the glottis. It is admitted that an acid state of the stomach often causes irritation in the pharynx, which thence extends to the posterior part of the upper portion of the larynx. In adults this is beyond all doubt, and in children it is every way probable. Is the impression of these acrid matters, eructated, from the stomach or secreted in the pharynx, under particular circumstances, upon the larynx the cause of the sudden occurrence of croup? It would be difficult absolutely to disprove these propositions. In my mind they are not improbable, but on the other hand, admitting the connexion between disordered stomach and croup established as it is by the most extended observation, may it not be attributable in part, at least, to the fact that continued coldness of the surface is precisely the condition which fits the system, as well in childhood as in age, for the action of cold and moisture in producing inflammatory diseases?

But, setting aside these considerations, and under any view of the subject, what is the morbid condition of the glottis which gives rise to the croupy symptoms? If from cold it is inflammation, if from acrid secretions acting for more than a few minutes, it is and can be nothing else. There is, therefore, no spasmodic croup, if by spasm it is intended to exclude inflammation as a cause of that spasm.

But I am asked again how are the two kinds of croup above described to be explained pathologically. The answer to this query will appear in the classification of the forms of croup now proposed.

Under the term croup, properly so called, are included two affections, which may exist either separately or together.

1. The cynanche trachealis or trachitis, in which membranous exudation is more or less formed in the trachea before any affection of the larynx, and more especially of the glottis, takes place.

2. The cynanche laryngea or laryngitis or glottitis, in which the laryngeal or spasmodic symptoms occur first or exteriorly.

3. Between these two there are varieties of combination, and these constitute the great majority of the cases met with

in actual practice. In the most pure case of the so called spasmodic croup, no practitioner can say beforehand that no fatal inflammation of the glottis will occur, or that no obstruction of the trachea by false membrane or solid mucus is to be apprehended.

Is the disease croup a specific disease? Is there any peculiarity in the inflammation which gives rise to that secretion in the trachea? Let us look to anatomy and physiology, and the observation of disease, and to dissections for answers to this question.

In the first place, between the most firm tubular form of false membrane, and inspissated mucus, and mucus of an ordinary consistence, we see in dissection of croup every grade and variety. If specific, its character should be more marked.

When a child attempts to swallow hot water, the membranous exudation is produced in the posterior fauces and upper part of the larynx. Here then is an ordinary cause of inflammation producing what some consider a peculiar and specific secretion.

This question has a bearing upon practice, because it is contended by some that the specific effect of mercury is the proper remedy for this specific secretion.

It remains for those who deny the specific character of the tracheal secretion to account for its existence there, rather than in the larynx and trachea. In the larynx it is more rarely met with. in the trachea it gradually becomes less tenacious, and more resembles ordinary inspissated mucus. May it not be merely inspissated mucus in all cases? mucus inspissated by rapid disiccation? If a portion of mucus is left in the trachea, the increased rapidity of respiration, and the narrow calibre of the tube, must necessarily remove its watery particles in a doubly augmented ratio; less so in the trachea, because the same volume of air in proportion to surface does not pass by, and the air also is more charged with the moisture in its previous passage through the trachea—less so in the larynx, because that tube is larger. Rarely is the membrane seen upon the glottis, because death arises from spasm ere it has time to form on that irritable part. Rarely in adults, because in them the trachea is double the size it is even in advanced childhood, and because they exert a stronger volition to detach by hawking the first tenacious mucus that is adherent to the trachea.

The surface of the trachea is very unirritable. Where foreign bodies enter by accident, as when a tube is forced

into it by an artificial opening, no coughing is induced unless by its rising up the glottis is touched. A small foreign body has been known to remain for years, quietly lodged in one of the ventricles of the larynx. The trachea and the comparatively unirritable parts, are those in which inflammation may be going on for a considerable length of time, without exciting any very marked symptoms. This consitutes the true explanation of the two modes of invasion in croup.

Besides these three forms of idopathic, primary, or true croup, the laryngeal, the tracheal, and the mixed—there are forms of secondary croup, such as occur in measles, scarlet fever, and more especially in the malignant ulcerated sore throat, the diphtherite of Bretonneau. This last occasionally occurs sporadically with us, and is, I apprehend, very generally the disease which, under the term croup, carries off in quick succession two or more children in the same family. I have treated it successfully with calomel and opium, followed by wine whey, in conjunction with nitrate of silver to the throat—but my experience is too limited for me to assume to instruct others in regard to its nature and treatment. The French writers do not appear to discriminate between this affection and croup, as known here and in great Britain.

Before speaking of the proper medical treatment, I will say a few words on a point of Hygiene.

1st. What is the best method of bringing up children, with a view to their exemption from this disease?

Two systems are adopted for this purpose—one is to allow free exposure and exercise in the open air, except in the very worst weather. The children being well guarded with warm clothing, are not suffered to cease their exercise until they re-enter the house. The second is to confine them within doors, during the whole of the winter, and the early part of the spring. My observation leads me to think that although the first plan, if it is followed with great care, is the best, yet the second is more easily pursued, and upon the whole is the safest.

2d. Under what circumstances should especial precautions be taken, with a view to ward off the attack?

A child between the ages of two and five years with catarrh and cough, however slight and unfrequent, is a fit subject for croup, and if that disease is prevailing at the time, an attack after any exposure to cold and moisture, or any excess in eating, is always probable. The child should be confined to the house and dieted.

The treatment of croup should be prompt and decided, for if left to itself, the disease would probably in general prove fatal. But although prompt and decided treatment is necessary, it does not follow that heroic treatment is always, or even generally required. But the existing symptoms must always be met by remedies adquate to subdue them. The great skill of an experienced practitioner is shown in determining what amount of active treatment is *essential* in any given case; how much is requisite to remove the threatening symptoms, and to induce a favorable change, and how soon he must recur to the more severe remedies, after the disease has been for a time meliorated.—*N. Y. Annalist.—Buffalo Medical Journal.*

Treatment of the Oxalate of Lime Deposits.—Although there can be little doubt that oxalic acid is generated in the urine by the putrefactive decomposition, and often occurs subsequent to secretion in a manner totally independent of disease, yet it is also certain that this decomposition frequently results from an essential vice of secretion. The morbid conditions which give rise to this change are not yet known; but one thing is well ascertained, that in every instance of the kind there is frequent desire to pass water, pain in passing it, and that the secretion is commonly loaded with epithelium. These phenomena proclaim the existence of irritation of the mucous membrane. Sometimes the crystals of oxalate of lime, like those of uric acid, cohere in the calyces and infundibula, forming calculi, which produce paroxysms of nephritic colic by their descent into the bladder. In such cases inflammation of the lining membrane may be mechanically produced; but it is doubtful whether the symptoms of mucous irritation which usually accompany the oxalate of lime deposit are due to the irritating contact of the sharp crystals. Whatever is the cause of the mucous irritation, it constitutes the lesion which, in oxalate of lime diathesis, you are especially called on to remove; and its successful treatment requires no little delicacy in the application of therapeutical agents. Unlike acute mucous irritation, depletion and emollients will act in this irritation injuriously, if employed in the first instance; you must have recourse to tonics immediately, such as the mineral acids, vegetable bitter astringents, &c.; and having employed those means for some time, you will then find the greatest benefit from alkalies largely diluted.

It will be often necessary to alternate these methods of treatment for a considerable period, but you will generally find that ultimate benefit will be derived from steady persistence in their use. The form of tonic mixture which I usually employ in these cases, is the following:

℞. Infusi cascarillæ, ℥vj.
Nitratis potassæ, ʒj.
Acidi nitrici diluti, ʒiss.
Tincturæ opii, ʒj.
M. Sumat cochlearia quo ampla ter in die.

Ranking's Abstract.

Deglutition excited by dashing Cold Water on the Face.—The following suggestion by Mr. Simpson of Stamford, founded upon the invaluable principles of the excito motory system is worthy of more general application in cases in which the power of voluntary deglutition is lost. The suggestion is well illustrated in the subjoined case.

A poor man, who had attempted suicide, was sinking from the effects of loss of blood; his pulse was imperceptible, and the action of the heart could scarcely be felt. It being desirable to administer stimulants, his mouth was filled with spirits and water, but the patient was unconscious, and therefore did not swallow. Cold water was dashed upon his face for the purpose of making him swallow by exciting reflex action, when the contents of the mouth were instantly gulped down.—*Lon. Lancet.—Ibid.*

On the Causes of Baldness.—Mr. Cattell, in a paper entitled "Practical remarks on Diseases of the Hair," thus speaks of baldness:

Baldness, in relation to its causes, may be thus distinguished—

First, where it occurs in the vigor of life.

Secondly, where it exists in the decline of life.

In baldness taking place during the vigor of life, we find two opposite conditions of the skin—morbid constriction, and morbid relaxation.

1. Epidermical constriction.

This state of the skin may arise from the powerful influence of the passions, cold, febrile affections, &c.

And it may produce baldness in one of two ways—either by partially strangulating the hairs, and thus preventing the rise of their coloring elements, constituting absolute discoloration; or by causing the hairs to break off on their exit from the skin, leaving behind only the roots of the hairs, but so far hidden and confined below the skin as to constitute baldness.

Such being the one of the immediate causes of baldness, it may, further, be pronounced temporary or permanent.

The duration of baldness resulting from epidermical constriction will be correspondent to the facility or difficulty with which a removal of this state of the skin is accomplished.

Baldness may be only temporary, when the orifices of the hair-pores are closed by dry scales and cells, which frequently collect at their aperture, the hair growing, notwithstanding its inability to escape.

Baldness must be considered permanent when, subsequently to the removal of the epidermical constriction, there exists that condition of the roots of the bulbs, which we shall notice under the head of senile baldness.

The prognosis of baldness is regarded favorable, when the scalp, by friction with the hand, portrays an immediate redness; unfavorable, when the contrary.

2. Epidermical relaxation.

During the continuance of this condition of the skin, the hair not only falls off, but comes out in considerable quantities whenever it is combed or brushed.

Epidermical relaxation, then, becomes a cause of baldness, by permitting an enlargement of the perspiratory pores, and too abundant perspiration; for it is a remarkable fact in persons suffering from the loss of hair through relaxation of the skin, that they perspire on the least exertion or exposure to the heat.

Epidermical relaxation operates, moreover, as a cause of baldness, by destroying the firm interlacement which exists between the roots of the hairs and skin.

That the existence of the hair cannot be permanent, when only held in the skin by its roots, will be evident, if we examine a hair pulled out by its root—in which case, it will be found soft and pulpy in structure. Besides, we must annex the opinion, advanced by many anatomists, that the roots of the hair are fixed in the rete mucosum, or fat, immediately beneath the outer skin.

Associating, then, the existence of epidermical relaxation

with the fact that the hairs owe their chief stability to a healthy firmness and condition of the outer skin, it is not in the least surprising that they should be loosened, come out, and leave the patient bald.

Secondly, where it exists in the decline of life.

Baldness in the decline of life does not arise from the two previously mentioned causes, but from a decay of the roots or the bulbs of the hairs.

And it must be observed, that baldness is not an isolated effect of the lapse of years, but a general one, which supervenes in consequence of the obliteration and loss of function that occur in almost all the exterior vessels of the system.

In observing the order of changes giving rise to baldness in aged persons, we may notice,—1st, deficient supply of the colorizing elements of the hair; 2d, death of the internal pulp, the external part only remaining; 3d, after discoloration of the hair has occurred, the small bag which contained the root is gradually obliterated, and finally disappears.—*Lon. Lancet.—Ibid.*

Ergot of Rye in After-Pains.—Dr. Beatty observes that he has found the ergot most useful in preventing, or greatly moderating the severity of after-pains. He has seen a patient who was writhing from pain, which opium had not the power of controlling, speedily relieved by the ergot. He exhibits it for this purpose in the same manner as when his object is to restrain hemorrhage. He thinks that it acts by causing perfect contraction of the fibres of the uterus, and keeping them in this condition, and also by preventing the formation of clots in the interior of the uterus, by whose presence the spasmodic action is excited and kept up.—*Dub. Quart. Jour.—Ibid.*

Clinical Remarks on Typhoid Pneumonia. By Grineau de Meussy.—The occurrence of a case of fever in the wards of Hôtel Dieu, in which a previously unsuspected pneumonia was discovered after death, gave rise to the following remarks:—

Let us inquire what is the difference between primary

pneumonia, that is to say, pneumonia occurring without any other appreciable disease, and secondary or consecutive pneumonia. Consecutive pneumonia is generally a most insidious disease, and arises and makes considerable progress without giving rise to any particular symptom. The initiatory rigor, so much insisted upon by pathologists, as well as the pain in the side, is usually either entirely wanting, or is so slight that it escapes the attention of the physician. Dyspnœa, greater than is to be accounted for by the febrile condition of the patient, is in general the only rational sign which is presented.

Nevertheless, by auscultation we shall find either the crepitous râle, or, if the disease is more advanced, bronchial respiration and bronchophony; we must, therefore, in doubtful cases, have immediate recourse to the stethoscope, if we would recognize the disease at its commencement. But there are certain cases, of which the present is an example, in which the greatest attention to the physical condition of the chest fails to detect any abnormal sound; in these cases it is probable that the pneumonia is central, and will only be recognized as the inflammation extends to the surface.

In some instances the invasion of pneumonia is announced by a sudden increase of prostration, with an alteration in the features expressive of anxiety, and emaciation. However full the pulse may have previously been, it becomes small and thready. There is also occasionally quiet delirium, or a state of adynamic somnolence, which shows itself suddenly during the progress of the fever. This is the form of pneumonia to which authors have applied the term *latent*, but the term is in truth misapplied; for though certain symptoms are absent, the auscultatory sounds are in most cases as marked as in the ordinary idiopathic disease. What we have said in reference to the pain applies also to all those symptoms for the manifestation of which a certain amount of sensibility and vital power is necessary. The cough and expectoration, for example, are less marked in patients who are delirious or extremely exhausted, and the physician is in such cases deprived of all valuable diagnostic signs.

It must be stated also, that it is rare to find the physical signs of typhoid or secondary pneumonia as distinctly defined as in the idiopathic form of the disease. For instance, the crepitous râle is composed of larger and less equal bubbles, and is often masked by other râles, as the sibilous or sonorous; a valuable diagnostic sign exists in the extraordina-

ry heat of the skin, and in a general increase of febrile symptoms.

In speaking of the treatment of this adynamic form of pneumonia, the lecturer remarks upon the impossibility of having recourse to depletory measures, and the necessity of caution in the use of the ordinary internal remedies for pneumonia, as tartar emetic, in consequence of the irritable, or inflamed, or ulcerated condition of the alimentary canal sometimes present in these cases. He very properly relies chiefly upon counter-irritation, with the guarded exhibition of tartar emetic in small doses.

The lecturer omits to mention a very necessary part of the management of these severe cases, namely, the exhibition of nourishment, and in some cases of stimulants.—*Gazette des Hôpitaux.—Ibid.*

On the Treatment of Pneumonia.—By Dr. Anthony Todd Thompson. The writer's object in the following remarks is to examine the comparative advantages of treating pneumonia with bleeding, and with antimony, with or without mercury. In regard to the former, while he acknowledges its utility when employed with moderation and at an early period of the disease, he deprecates profuse and repeated bleedings as positively hurtful. He denies that it is ever beneficial when solidification of the lungs has taken place, but on the contrary, asserts that it only quickens the circulation, and hastens the disorganizing process. He declares his conviction that the repeated use of the lancet may generally be rendered unnecessary by the judicious employment of tartar emetic. His practice is thus developed:

My practice, as soon as I have fully satisfied myself of the existence of the disease, and if the attack has not run on to the second stage, is to order one bleeding to the amount of sixteen or twenty ounces; to follow this immediately with three or four grains of calomel and one grain of opium, with the view of preventing that nervous irritability which often succeeds the use of the lancet, and of sustaining the beneficial impression made on the system by blood-letting. In two hours afterwards I give one grain of potassio-tartrate of antimony, in a fluid ounce and a half of emulsion of bitter almonds, and repeat this dose every third or fourth hour, until

a decided diminution of inflammatory action takes place—that is, until the crepitation has nearly disappeared, and the sputa are no longer rusty and tenacious. The intervals between the doses of the tartar emetic are then extended to six hours, and afterwards to eight hours, and so continued until convalescence is confirmed. I prefer the bitter almond emulsion on account of its containing hydrocyanic acid, which has a sedative quality, and a more decided influence in quieting the nervous system, and abating the cough, than small doses of opium. When pneumonia is uncomplicated, this plan, with the occasional aid of some mild aperient, has, in my hands, seldom failed to carry the case to a successful termination. When the attack has passed the first stage, when dullness on percussion indicates hepatization, then the object of the second indication—namely, to excite the capillaries and prevent further depositions—requires attention; and, in order to fulfil this indication, I order four or five grains of mercury with chalk, or one grain of calomel, to be given in each interval of the administration of the tartar emetic. In the statistical table, twenty-three out of the thirty-eight cases were treated with mercurials in addition to the tartar emetic, because, in hospital practice, the patients are seldom brought in until the disease has progressed, and the solid effusion, if I may employ such a term, has taken place. But in the remaining fifteen cases no mercurial was employed, the tartar emetic was alone trusted to, and it did not disappoint my anticipations; but in no instance was its employment commenced until after the abstraction of blood, either by the lancet or by cupping. I have never carried the mercurial action to ptyalism; but it is requisite to procure the usual symptoms of its decided impression on the habit, by producing slight tenderness of the gums. In ordinary cases I have seldom had occasion to order blisters; but, from the nature of hospital practice, they are demanded, and they were employed in sixteen of the cases in the statistical table. Such are the advantages of moderate doses of tartar emetic in the treatment of pneumonia. In the same manner as when larger doses are administered, vomiting almost always occurs after the first and the second dose of the remedy; but on the third dose the tolerance is established, and even when the dose is increased, neither nausea nor vomiting afterwards takes place.

In reference to the *modus operandi* of tartar emetic, the author further remarks;

If I may be permitted to state a hypothetical opinion, I should venture to offer my view of what has been termed the tolerance of the habit against the well known influence of tartar emetic, when administered in moderately large doses. It has been supposed by Rasori and others, that the inflammatory state of the system in pneumonia is the cause of this tolerance, and that this would cease if the remedy were continued after every trace of general inflammation had disappeared. I am, however, of opinion, that the tolerance does not depend on the state of the habit, but solely on the topical influence of the tartar emetic on the mucous membrane; and upon its influence, also, on the membrane operating as a counter-irritant; and to this its beneficial effect in subduing inflammation is to be attributed. When a grain or more of tartar emetic is swallowed, a portion is carried into the circulation, and acting on the nervous centres, it causes vomiting; but a portion also acts topically, on the mucous membrane, and sets up subacute inflammatory action there. The second dose also causes vomiting, because the inflammation, although extended, yet is not sufficient to prevent absorption: but when the third dose is given, the absorption no longer takes place, and consequently no vomiting is induced. It is a well-established fact, that an inflamed surface is incompatible with absorption: and to this, in a great measure, are we to attribute the accumulation of serum in serous cavities in dropsy. If my views be admitted, I would further state, that the determination of blood to so extended a surface as that of the mucous membrane is, in my opinion, sufficient to relieve the congestion in the lungs; and that it is, in truth, the cause of the benefit which follows the employment of the tartar emetic. Such is my opinion of the rationale of the action of tartar emetic in pneumonia; but on this part of my subject it is not my intention to insist, my chief object being to demonstrate that this powerful therapeutical agent can perform all that can be expected from its administration in much smaller doses than Rasori and his followers have employed; that such doses incur no risk, seldom bringing on diarrhœa, whilst hypercatharsis has followed the administration of larger doses; and that in such doses it sets aside the necessity of large and repeated abstractions of blood, and consequently cures the disease without that injurious impression on the habit which has been frequently seen to follow copious blood-letting. Another advantage obtained by this mode of practice in pneumonia is the gradual ad-

vancement of the convalescence, and the restoration of the patient to health and vigor without the aid of tonics. By gradually letting down the action of the tartar emetic, the stomach recovers its tone, and the assimilating function rapidly restores any waste which the necessary treatment of the disease may have occasioned.—*London Lancet.—Ibid.*

On the Management of Convalescence from Acute Disease. By M. Reveille Parise.—M. Parise remarks that after serious prolonged illness every organ suffers more or less from exhaustion, and its function is feebly performed. This condition of the economy results from the violent excitement of the antecedent disease and the privation of food. The former, of course, no longer operates, and food may be given to replenish the waste, and recruit the forces, the stomach is therefore the organ with which we have to do.

M. Parise lays it down as a maxim that, after disease, the sensibility of the stomach and intestines is exalted and their tone diminished. The indications therefore are obviously to diminish the sensibility and to augment the tone of the stomach, and consequently to enable digestion to be properly performed; but our means of accomplishing this are not so efficacious as might be imagined. If the subject be young and vigorous, health is soon restored, and digestion established; but even here, if the tormenting hunger which accompanies convalescence be appeased by injudicious supplies of food, various disturbances of the digestive organs ensue. 'But if the convalescent is naturally delicate, nervous, or irritable, if his digestive powers are not strong even in health, if he has reached a certain age, or been worn by anxiety, we must expect a tedious convalescence."

At first sight, the fortifying the stomach by tonics would seem to be a natural means of procedure; but every reflecting practitioner has seen cases in which an irritable and sensitive condition of the stomach renders the establishment of its powers a matter of nicety, as well as difficulty. If we employ a soothing means and a debilitating regimen, the tone of the organ is further diminished; while if we exhibit stimulants, uneasiness and thirst, dryness of the mouth, &c., prove that we are injuriously exciting the organ. Diarrhœa

occurring during convalescence often misleads the practitioner, for he has difficulty in determining whether it is caused by some source of irritation still remaining, or whether it is the consequence of simple atony of the intestinal canal. In these cases it may be stated as a general rule, that the diarrhœa of convalescence is connected with defective tonicity, which will be yet further diminished by abstinence and local depletion.

The following indications form the basis of a judicious convalescent regimen:

1. To allow only as much food as the stomach can digest.
2. To advise the patient to eat little and often.
3. To submit the food to effectual mastication.
4. To keep the general surface, and especially the extremities, warm during digestion.
5. To adapt the food to the peculiar sympathies of the stomach.
6. To introduce a judicious variety in the diet.
7. To advise change of air.
8. To avoid vivid moral emotions.

It is certain, notwithstanding, that however properly the above injunctions be carried out, the recovery may be impeded by various accidents. Only two of these are alluded to by M. Parise, and that because of their frequency, viz: *diarrhœa* and *gastro-enteralgia.* When the first of these is present we must endeavor to ascertain whether it is produced by errors of diet or by some moral cause. Is there any inflammation, or does it depend upon simple atony of fibre? Even when symptoms believed to be inflammatory are present, we must still be very cautious in recommending abstinence and leeching, which may produce a degree of exhaustion and loss of contractility of parts, which may take years for its reparation. Diminution of food will, however, be required, as well as counter-irritation, in the form of dry cupping, or sinapisms to the abdomen. When the irritation has subsided, mild tonics and an improved diet are indicated. In passive diarrhœa, M. Parise speaks of the *theriacum* (a miscellaneous compound containing opium) combined with calumba.

Gastralgia, or *enteralgia*, is far more frequent after severe disease, especially when the alimentary canal has been effected, than is generally believed. The irregularity forms one of its most dirtinguishing features. The acute feeling of hunger suddenly changes into a state of insupportable languor. In this state a superabundant nourishment is injurious,

but in a far less degree than a too scanty one. Abstinence cannot be borne, nor do the epigastric pain and sinking cease until a certain quantity of food has been swallowed; while, if its administration be too long delayed, digestion does not take place, and diarrhœa is apt to ensue. First among medicines adapted to this state is bismuth alone, or with opium and calumba. Blisters and sinapisms to the epigastrium are also beneficial, as is also the endermic use of morphia.

Whatever means we have recourse to for the restoration of the energy of the alimentary canal, their prolonged employment is necessary. "Perseverance and variety," says M. Parise, "must never be lost sight of in a troublesome convalescence, during which health and disease are constantly vibrating."—*Medico-Chirurg. Rev.—Ibid.*

On the Treatment of After-Pains. By Edward Rigby, M. D., Senior Physician to the General Lying-in Hospital, &c., &c.—We find these pains after most labors, but they vary much, both in duration and severity. They are always most severe in women who have borne many children, and in some multiparæ they continue from 24 hours to three days. These pains, in common with those of labor, depend on contraction of the uterus; and these contractions are kept up after labor, by the presence of the lochia, or of coagula of blood, or of shreds of membrane in the cavity of the uterus. The after-pains, therefore, you will easily understand, are essential to the duty of this organ. After-pains are not usually felt in primiparæ. In multiparæ, when the woman is quite healthy, they seldom continue very long. When very severe, and of very long continuance, they may be considered as indicating the presence of inflammation, or, at all events, of a state bordering on inflammation. The pain no longer comes and goes in distinct intermissions, and it gradually becomes constant; the uterus, too, becomes tender on pressure, and the other symptoms of inflammation are established, but we shall have to consider this subject hereafter, when speaking of puerperal fever. It must, however, be borne in mind, that long-continued and severe after-pains may form an insidious transition to a state of inflammation.

The treatment pursued during the last few days of pregnancy has great influence in modifying the after-pains. If

the woman be allowed to go, even up to the period of her labor, with her bowels confined and loaded with unhealthy fæces, and with the secretions of the primæ viæ disordered, the uterus seldom contracts well during labor, and, under these circumstances, after-pains are sometimes very severe. The too rapid expulsion of the placenta, and the hasty conclusion of the last stage of labor, so that the uterus does not contract fully and firmly, are also causes of the contractions which cause these after-pains; and, in these cases, the after-pains are useful in expelling the clots and lochia, which, if allowed to remain, would become putrid, and thus prove a source of irritation, and, perhaps, give rise to puerperal fever. When the practitioner neglects to apply the child to the breast as soon as labor is concluded, the uterus does not contract fully, as before mentioned; this, therefore, is another reason for early suckling. In speaking of the application of the child to the breast, it was omitted to mention the fact of nurses having a saying, that "the child brings after-pains." This occurs to a great extent, when the infant is not applied to the breast until the third day, and is, therefore another reason, if more were required, for its early application.

Although after-pains are commonly, no doubt, excited by the presence of coagula in the cavity of the uterus, still they may sometimes occur when no such coagula are to be found. On this subject Dr. Burton, of York, who published in 1751, has given some curious observations, which explain one cause of after-pains very satisfactorily. Dr. Burton says, "upon the expulsion of the child and the placenta, the orifices of the uterine sinuses must contract, and thus retain the grumous blood which is in them; hence the use and benefit of these after-pains, which by stimulating and compressing the vessels and muscular fibres, make them exert their force to squeeze out this grumous blood, which otherwise might remain there, and occasion inflammation, suppuration, &c., from all which, we find that these after-pains are necessary towards removing or preventing an inflammation of the womb; therefore, we must not be too forward in giving strong opiates, and other internal medicines, which may take them off whilst this grumous blood is lodged within those sinuses. I doubt not," continues Dr. Burton, "that those patients who die from the eighth to the fourteenth day, whose uterus has been inflamed with the symptoms above mentioned, have been injured by the too free use of opiates." The discharge, in these cases, contains little vermiform shreds, and these

shreds do not consist of portions of membrane which have been left behind, but they are the casts or moulds, as it were of the cavities of the bloodvessels, and are composed of their contents coagulated. Dr. Burton mentions a case to which he was called, in consequence of severe after-pains coming on some time after labor; in this case, having introduced his hand with some difficulty, he perceived several small membranous strings, as he then thought them, adhering to the uterus; but, he says, "I was soon undeceived, for, upon expanding my fingers, by which I stretched the womb a little, several of these came into my hand, which I drew out, and found what I had imagined to be membranes to be only oblong grumous blood, resembling fibres, like those that adhere to a spatula after stirring arterial blood in a basin for some time. I introduced my hand a second time," he continues, "and made the experiment again, but found none of these little clots within the cavity of the womb; yet, upon expanding my hand, several came out of the orifices again, which I could plainly perceive, and, after keeping my hand there a little while, I brought away all that were in the cavity of the uterus, and the patient's complaints immediately abated, and she recovered well from that moment." These little vermiform fibres are, therefore, the casts of the bloodvessels, the contents of which had coagulated, having been retained by the contraction of their orifices. By being careful not to hasten the last stage of labor, so as to give the uterus time to contract slowly, the uterine sinuses expel their contents, and the annoyance of after-pains is, in many cases altogether prevented.

It was formerly the practice always to administer a large dose of laudanum, to check these after-pains; and a most pernicious practice it was, but which happily has diminished considerably of late years. As much as forty minims of tincture of opium were administered as a rule in all cases by some accoucheurs. It is hardly necessary to point out the falsity of the reasoning on which this practice was founded. Opiates should never be given for the purpose of checking after-pains, unless they are very severe, or in some peculiar cases which will be hereafter considered. Should the patient, however, have been accustomed to an after-pain draught, as it is called, and seem to expect it, a little tincture or extract of hyoscyamus or of lettuce may be given her. A mild sedative may, however, in many cases be useful after labor, as when the system is in a state of irritability and restlessness, consequent on the fatigue and irritation of a

lengthened period of suffering; but in these cases a small dose of Dover's powder, or of the sedative solution of opium, will always prove sufficient. When after-pains continue very severe for some time after labor, the best plan of treatment will be to give the customary dose of castor oil a little earlier than usual; this will generally relieve the pains, on bringing a quantity of fecal matter. When the pains continue very severe, in spite of this treatment, the presence of inflammatory action may be suspected, and the treatment must be accordingly.—*Medical Times.—Ibid.*

Poisonous properties of the Sulphate of Quinine.—Doctor Baldwin, of Mongomery, Alabama, details in the last number of the *American Journal of the Medical Sciences*, several cases illustrative of the poisonous action of quinine under certain circumstances. One is as follows:

A man, about 30 years old, habits and constitution good has had a cold for five or six days. On the morning of the 25th October, 1843, was taken with a chill, the sensation of coldness continuing nearly all day with severe and acute pain in the right side, frequent cough and severe headache.

26th. Pulse 108, rather soft and moderately full; skin hot; cough frequent; expectoration scant and fluid, slightly tinged with blood; severe headache, and great turgidity of veins about forehead; tongue nearly natural; bowels rather costive; thirst; slight dullness on percussion over lower part of right lung, and nearly over the whole lung the natural respiratory murmur is replaced by an irregular undulatory sound, resembling somewhat that produced by the application of a 'sea-shell' to the ear. In the left lung the sounds are healthy. Eyes very much injected; slight delirium.—℞. Calomel grs.v; p. opii gr.¼, M. Repeat every third hour. Mucilaginous drinks.

Noon. Pulse 115; has taken three pills; expectoration of a reddish orange; otherwise same. ℞. Antim. tart. grs.ii; aq. pura ℥iv, M. ℥ss every hour. ℥iv of blood from frontal vein.

Vesp. Pulse 120, full and soft; respiration 36; dullness extending upwards; no sound present over dull part except a

slight friction sound, more audible during inspiration; over sonorous part of lung on applying stethoscope only the undulatory sound heard, respiratory murmur being absent; cough frequent and attended with great pain; expectoration same; tongue moist; collection of sordes on upper teeth; breath fœtid; quite delirious, talking incoherently, and is anxious to get up and leave the bed; complains much of head and side. Took four successive doses of medicine, but vomited up a large quantity of bile just before taking the last dose. ℞.—Continue antimonial every hour.

8 o'clock, P.M. Pulse 104; respiration 28; sweating very freely; says he feels easier, since he had a large, thin, yellow operation, about half an hour ago.

10 P.M. Sleeps apparently easy for a few minutes and then awakes and talks deliriously. Pulse 98, full and soft; respiration 26; tongue rather disposed to be dry on dorsum; skin moist; complains of sharp pains darting through head; side easier. ℞. Continue antimonial every third hour; quin. grs. xii at 11 o'clock, grs. viii at 2 o'clock, and grs. viii at 5 o'clock in the morning.

27th. Pulse 104, more firm; respiration 28; skin became dry at quarter after 10 o'clock last night, and so continues; continued to have short naps, between which he would be awake and delirious; had three thin dark evacuations—after the second he took fifteen drops tr. opii, same quantity after third. He missed one dose of quinine (8 grs.) last night; complains much of the same darting pains through head and side; took about 12 oz. blood, from which he experienced no immediate relief of pain; pulse softened a little under it, the frequency remaining the same; no nausea; a little deaf; suppressed cough. ℞. (Now 7 o'clock, take quin. grs.viii.) Antimonial mixture (¼gr.) every hour; tr. opii gtt. x after each evacuation.

Noon. Pulse 100, softer; respiration same; skin moist; one more evacuation; sleeps steadily now, except when he is awakened to take medicine. ℞. Continue same.

2 P.M. Asleep, and sleeps soundly nearly all the time except when awakened to take medicine; pulse 100, full; respiration 28; skin hot and dry; tongue moist and white; cough frequent; expectoration scant, opaque, and without blood; slightly deaf; nausea. ℞. Continue same.

Vesp. 5 P.M. Is scarcely at all delirious; forehead moist; thirst; complains much of weariness, emptiness and nausea; pulse 98; respiration 24; sleeps well; has been up several times, but no evacuation. ℞. Give quin. grs.viii; continue antimonial.

8 P.M. Pulse 98; respiration 26; otherwise same. ℞. Quin. grs.xxvi; calomel grs.xii; tart. emetic grs.iss; p. opii grs.i; M. In pls. No. xviii, div.; three every second hour. Continue antimonial, gum water, &c.

28th. Pulse 85; respiration 20; one evacuation; less dullness; expectoration easy and free, opaque and yellowish; tongue moist and white. ℞. Continue same, leaving tartar emetic out of pills, and instead ℞. antim. tart. grs.iii; water ℥iv. M. ℥ss every hour.

Noon. Pulse 98; respiration 26; skin hot; expectoration more difficult and scant; has just thrown up some bile; considerable nausea; an orange colored matter deposited on the teeth, at the junction between them and the gums. ℞. Continue same, omitting one dose of the antimonial solution.

3 P.M. Called to see him. He had a little while before been taken with a *jerking motion* of the whole body, which lasted several minutes, and immediately after his *vision was so imperfect* that he could scarcely distinguish anything.—When I arrived, whole surface hot; respiration irregular, from 11 to 20; pulse 100, full and rather firm; temporal veins turgid, and temporal arteries throbbing; *great restlessness*, anxiety, and alarm; thirst increased; tongue more dry, white and rough; *pupils dilated;* he dozes two or three minutes at a time, then starts up breathing more quickly and audibly; cough frequent and dry; respiratory murmur heard over greater extent of lung. The convulsive movements of body came on every ten or twelve minutes, sometimes apparently of whole body, at others confined to the arms; in the latter case, by grasping the arms with moderate firmness, or pressing them against the bed, the motions could be arrested immediately. He was not insensible during the convulsions, nor was there foaming at the mouth, but occasionally a staring and vacant look, and rolling up of the eyes. By half after 4 o'clock *he was completely blind.* On drawing (4½ o'clock) an ounce of blood, from a small orifice, it jetted out with force and was the color of arterial blood, and much buffed when cold. From 4½ o'clock till 6 o'clock he had but one slight convulsion. After taking 1 oz. of blood I thought the pulse softened, but regained its same character by the time I had tied the arm.

It is unnecessary to pursue the subsequent details of the case. The man recovered after a protracted and serious illness, and has regained a useful degree of vision. His vision began to improve about 24 hours after, though it is still impaired up to this time.

He thinks such accidents may be avoided by giving the medicine largely diluted:

When the stomach is in a condition to bear it, its absorption and activity can be greatly facilitated by *largely diluting* it with warm water. When dissolved and diluted in this way, even when given in what may be termed 'heroic doses,' provided the quantity to be taken is divided and given at intervals of one, two, or three hours, its deleterious effects may always be avoided *and the remedy persisted in with safety* in the absence of any manifestation of its influence, which we should never feel safe in doing when giving the 'insoluble di sulphate,' whether in the form of pills or powders; for, in the former case, we will always be advised of its unfavorable influence early enough for a timely withdrawal or modification of the dose. When given in this way, a given quantity seems to produce a greater effect and in a shorter time, than even a larger quantity when prescribed in either of the other forms.

This mode of giving quinine cannot be urged too strongly, for besides being a *saving* of a valuable and costly drug, and a preventive of its poisonous effects, it will be found of great assistance in prescribing generally. In cases requiring much delicacy and determination in their management, and where the propriety of the prescription is a matter of debate with the physician himself, and he wishes to be made sensible of the effect of the first dose of his remedy, in order to determine upon a continuance, it becomes a matter of great moment that the medicine should be administered in that form in which it will be most certainly and speedily appropriated by the system, and its operation made manifest to the physician.

Ether in the Passage of Gravel.—(Communicated by Dr. Ware, to the Boston Society of Medical Improvement.)—The inhalation of sulphuric ether was recently employed, in this city, for the relief of the pain attendant on the passage of a renal calculus through the ureter, in a case under the care of Drs. Homans and Ware. The patient, a gentleman of about 50 years of age, was convalescent from pleuro-pneumonia, having still some pain in the side, cough and bloody expectoration. About 7 o'clock in the evening, im-

mediately after an evacuation from the bowels, he was seized with intense pain, in a spot on the left side, midway between the umbilicus and the crest of the ileum. Elixir of opium in the course of an hour and a half, was given to the amount of 400 drops; several enemata were administered, and various local applications were made, with but slight alleviation, and the suffering was still of the most severe description.

At a quarter before nine, the ether was administered by Dr. Keep. The patient did not become at any time entirely insensible, but was very soon comparatively easy, and remained so as long as the influence of the remedy continued. As soon as the pain returned, he requested a repetition of the inhalation, and was again relieved. The pain still returned, from time to time, as the influence of the ether subsided, but was kept under by a renewal of the process until three o'clock in the morning, when the patient became so easy, that it was no longer necessary. During this period, of about six hours, there were thirty repetitions of the operation which were counted, besides several others which were not.

There was no subsequent return of the pain, and no inconvenience whatever was experienced. The pain in the side and bloody expectoration almost immediately ceased; and the patient states, that a pain to which he has been subject for many years, when lying on the left side, has left him since the inhalation.

The following practical inferences seem worthy of being noticed in connection with this case.

1. That a pain of this description, which is not relieved by large doses of opium, may be mitigated by inhalation of ether, without suspending that natural course of things by which its cause will be sooner or later removed. Hence this remedy may be applicable during the passage of a biliary calculus, in colic or other cases of spasm, and, perhaps in some cases of even natural labor.

2. That an individual may be kept under the continued influence of ether, for a long period of time with safety.

3. That the inhalation is not necessarily irritating to even diseased lungs, and the presence of considerable disease in them does not constitute an objection to its use, when circumstances demand it.

The practical bearing of these inferences is not affected by any doubts as to the accurcy of the diagnosis. Even were the medical attendants wrong in their judgment on this

point, which is very possible, it is not the less true that the patient was speedily and for a long time relieved of intense suffering, that the cause of the pain was during this time removed, and that no subsequent ill effects were the result. *Boston Medical Journal.*

Remedy for Toothache.—M. Cottereau recommends, for the alleviation of toothache, an ethereal solution of camphor, containing ammonia. Sulphuric ether is saturated in the cold with camphor, and two or three drops of ammonia are added. In this way an ammoniacal camphorated ether is obtained, which should be kept in a well-stopped bottle. This liquid acts as a cautery to carious teeth, and it immediately relieves toothache. M. Cottereau states that he has employed it for four years, and its application has always been attended with success. The rapid evaporation of the ether causes a slight deposit of the camphor in the dental cavity, and thus protects the nerve from the air. The ammonia has a cauterizing action.—*Lond. Med. Gaz.*

Bromide of Potassium as a substitute for the Iodide.—The low price of the bromide compared with that of the iodide of potassium has induced M. Ricord to substitute the former for the latter in the treatment of secondary syphilitic affections. The dose of the bromide is the same as of that of the iodide of potassium. It has produced the same therapeutical effects but more slowly.—*Journal de Pharmacie.*

THE WESTERN JOURNAL.

New Series.—Vol. VII.—No. V.

LOUISVILLE, MAY 1, 1847.

PROFITS OF MEDICAL PRACTICE.

That *the laborer is worthy of his hire,* is a proposition which will meet with universal assent; that the medical practitioner is one of the worst paid laborers in the land, will also, we believe, generally be conceded. While other men may decline business which pays nothing, the physician must attend to every call; and whereas the lawyer demands his fee in advance, or a note making it secure, and the mechanic expects to be paid as soon as his work is done, the doctor's bill must wait until all others are paid. A young medical friend in the interior of this State told us a short time since, that for more than a year's pretty laborious practice he had received, in cash, about twenty dollars, and he declared that if he should present his bills to his employers they would send for another physician, and he would lose his practice. Now what has brought about such a state of things? Is it not the affair of *Dan and the soaring eagle,* in the Irish legend, over again? The eagle, according to the story, caught up the napping Irishman and bore him through the fields of air in triumph; but at length his pinions grew weary and he began to complain of his burden. "*My dear fellow, who axed you?*" was Paddy's pertinent reply.

It is from no inherent weakness in their claims upon the public that physicians must thus defer them. If the practitioners of every

neighborhood would agree to present their accounts at the end of the year, when all other bills are sent in, the people would soon come to feel that doctors' bills were really to be paid. We throw out this hint as one worthy of consideration. The evil complained of does not appear to us at all an incurable one, and therefore to be borne in silence. The remedy is in the hands of the practitioners themselves, and they should apply it, *tuto, cito, et jucunde.*

TRANSYLVANIA UNIVERSITY.

By the Catalogue of the Medical Department of Transylvania University, which we have just received, we learn that the number of students in attendance there during the last session was 205. Of these, it is stated in the catalogue, nine were M.D.'s, and twenty took only the chemical ticket. The number of graduates was sixty-eight, two of whom had previously taken the degree at other institutions. The honorary degree was conferred upon Dr. Samuel B. Field, of Kentucky; Dr. Wm. H. Wilson, of Illinois; Dr. Wm. T. Le Grand, of Mississippi; and Dr. D. M. Lipscomb, of the same State.

The Lexington Medical Society has offered a prize of fifty dollars or a gold medal, for the best thesis submitted for the degree of M.D., in Transylvania University, at the next session. The same Society offers a similar prize for the best account of Continued Fever, as it prevails in any of the States out of New England.

RESIGNATION OF PROFESSOR MOORHEAD.

Dr. Moorhead has resigned the Chair of Theory and Practice of Medicine, which he has held for many years in the Ohio Medical College.

HARVARD UNIVERSITY.

We announced in our last number the resignation by Professor John C. Warren of the Chair of Anatomy and Surgery in Harvard University. The board of trustees have paid him the compliment, richly merited, of electing him *Emeritus* Professor of Anatomy and

Surgery. We learn from the Boston Medical and Surgical Journal that they have appointed three new professors since the resignation of Dr. Warren, two of whom are to be attached to the Medical College in Boston, and one to the University of Cambridge. The new incumbents are—Oliver W. Holmes, M.D., Professor of Anatomy and Physiology; John B. S. Jackson, M.D., Professor of Pathological Anatomy, and Curator; and Jeffries Wyman, M.D., Hersey Professor of Anatomy at Cambridge. These gentlemen enjoy a high reputation for talents, industry, and learning.

TENNESSEE DELEGATES TO THE MEDICAL CONVENTION.

The Medical Society of Tennessee have appointed six delegates to the Medical Convention. The names of the delegates are Dr. Hays, of Columbia; Dr. Avent, of Murfreesborough; Drs. Stout, Martin, and Buchanan, of Nashville, and Dr. Nelson, of Davidson county.

RANKING'S HALF-YEARLY ABSTRACT.

We have received the second number of volume II of this valuable summary of Medical Science, and find that, so far from any falling off in its interest, the number before us is an improvement upon its predecessors. The publishers are Lindsay & Blakiston, Philadelphia, and they offer it to subscribers on terms so reasonable, ($1 50 per annum) that it is obliged to attain a most extended circulation. For this small sum, the subscriber will receive in the course of the year eight hundred closely printed pages of well digested matter, relating to all the branches of medical science.

WILLIAMSBURG (VA.) ASYLUM.

The annual report of the Eastern Asylum in the City of Williamsburg, Virginia, for 1846, presents a favorable view of the condition of that institution. During the year the inmates numbered one hundred and sixty. The number of discharges was thirteen, all of which, except one, were in the usual form of recoveries. Dr. Galt's report is an interesting document.

FACTS FROM CORRESPONDENTS.

CASE OF POISONING BY CAMPHOR.

By Dr. *E. O. Brown*, of Brandenburg, Kentucky.

The following case of convulsions, brought on by an over dose of camphor, will probably interest the readers of the Journal. It is the second case of the kind that has occurred within a short time in Brandenburg.

Mr. A., a stout, robust man, on the 27th January, 1847, bought an ounce of gum camphor, had it put up in paper as usual, placed it in his pocket, and went to church. While there he would frequently pinch off small pieces and chew and swallow them, not noticing the quantity taken. After church he, with his father and brother, left town for home. When they had proceeded about one mile on their way, the two brothers were riding together, when suddenly the one who had taken the camphor drew up his bridle as though he was going to stop his horse, threw himself back and fell to the ground. Upon going to his assistance they found that he was powerfully convulsed; in a short time a second and a third convulsion followed. A gentleman passing at the time who was in the habit of bleeding, bled him, conveyed him to the nearest house, placed him in a warm bath, and gave some medicine. He remained speechless, and perfectly unconscious of all that was going on for several hours. After some hours he gradually recovered his speech, but stated that he could not recollect any of the transactions of the evening on which the accident happened. He remained stupid, languid, and rather wandering all next day, but gradually recovered his former condition, and has enjoyed his health and spirits as usual since.

The foregoing history I derived from the father of the individual affected. The weight of the camphor sold by the druggist was as-

ceiained, and on weighing it again it appeared that it had lost *one hundred and ten grains.* It may be concluded, therefore, that the young man swallowed something like that amount of the substance.

April 6th, 1847.

ASAFŒTIDA A PREVENTIVE OF MEASLES.

Dr. Harper is not convinced by the arguments of Dr. Stahl, that asafœtida is not a preventive of measles. He writes us to say that his faith in the prophylactic is as great as ever, though he does not give any additional facts in support of his opinion.

POISONING BY CARBONIC ACID.

A short time since, two negro men in Tennessee fell asleep upon the stack of an iron furnace filled with charcoal, which had been two or three days burning. In four or five hours they were found in a state of insensibility, but a trough of cold water being at hand, they were plunged into it, and, in the course of fifteen or twenty hours, restored to their senses, a little aqua ammonia having in the mean time been administered.

In the same State, a few years ago, a man went into his well in August, the water having given out. He fell down almost immediately, and his wife, having given the alarm, descended to his relief. A black man who arrived in a minute or two saw them both lying insensible at the bottom of the well, and running down was himself soon overpowered. The white man was taken out as quickly as possible, but never breathed afterwards. His wife, who was next removed, survived seven days, but ultimately died with typhoid symptoms. The negro was about fifteen minutes in the well; he recovered, and is still alive, but was hemiplegic for ten months, and even now has not the full use of his left side.

April 22d, 1847.

1847 Dwine

THE

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OF

MEDICINE AND SURGERY.

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THE

WESTERN JOURNAL

OF

MEDICINE AND SURGERY.

JUNE, 1847.

ART. I.—*Notes on Medical Matters and Medical Men in Paris.* By DAVID W. YANDELL, M.D., of Louisville, Ky.

Last week, M. Blandin, in one of his lectures in his amphitheatre at the Hôtel Dieu, spoke of the following case that had occurred in his female ward, which is so remarkable in many respects that I have concluded to give you a brief report of the lecture, to which I listened, as I do to all of his most practical and valuable lectures, with the greatest pleasure.

The subject, a woman sixty years of age, has for two years past had a crural hernia of the left side, which occasionally protruded, and as often returned, until five days ago, since which time there have been unequivocal signs of strangulation; eructations, vomitings, which presented this morning a fecal character; neither gaseous nor solid matter has been

What was to be done? Suspecting that perhaps the female sound had not been introduced sufficiently in front, and that its eyes had probably been stopped up by the strangulated part, a gum-elastic sound was substituted, and pushed deeply in. Thinking, on the other hand, that the female sound might have missed its end, and entered the inferior instead of the superior extremity of the intestine, a second gum-elastic sound was introduced into the other, that which might be the inferior or perhaps the superior extremity. Still nothing escaped, either through these tubes or along their sides, which was equally the case the following day.

At the visit on the second day after the operation the patient seemed to be no worse; she even asked for food, and there were no appreciable signs of peritonitis. But the vomiting had continued and the tympanitis had augmented to such a degree, that the convolutions of the intestines were delineated almost plainly enough to be counted through the parietes.

On the supposition that the spasmodic contraction of the inferior end of the intestine had applied it on the sound and closed its eyes, or that some unforeseen obstacle, which it would be impossible to remove without a new operation, was opposed to the re-establishment of the course of the fecal matter, the following operation was determined upon. It was to consist of an incision which should admit of the two extremities of the intestine being drawn out, in order the better to submit them to examination by the sight and touch, and thus attain a more exact apprehension of the state in which they were. For the sake of preserving useful adhesions and preventing contraction of the intestine into the abdomen, which would have been consequent upon its escape from the artificial ligatures which held it in place, the incision made was from without inwards, as M. B. has already done more than once with success. The external coverings of Gimbernat's ligament were necessarily divided; the ligament itself was divided with the care necessary in proceeding from the superficial to the deep seated parts. The two ends of

the intestine after detaching some slight adhesions, were drawn out to the length of about two centimetres. To our great astonishment, remarks M. Blandin, there was no expulsion of fecal matters. "A sound is placed in the superior extremity, nothing; another in the inferior, nothing still. In despair we left the two sounds until the next morning, after having prescribed a purgative injection; but the result was the same; nothing was discharged, and the patient died in the evening of the third day from the operation, and the eighth since the strangulation."

M. Blandin was utterly at a loss for a plausible explanation of this suspension of the course of the fecal matter, so prolonged, so obstinate, notwithstanding the opening of the intestine, notwithstanding the relief of the strangulation, the situation of the two extremities at the exterior, and the permanent presence in their cavities of a sound. A fecal clot clogging the small intestine, an internal strangulation, a volvulus, all seemed improbable.

The opening of the body, far from putting an end to our astonishment, M. Blandin continues, rather increased it.—"What obstacle did we find? None! The intestine was throughout perfectly healthy, and had preserved its proper calibre, and either of these operations that we performed would, in ordinary cases, have saved the life of the patient. If we could have obtained evacuations we should without doubt have prevented the development of the peritonitis which was the cause of the patient's death." This supposition seems so much the more likely as the inflammation of the serous membrane was slight, only characterised by some ounces of turbid liquid in the inferior pelvis, and some faintly developed false membrane around the ring.

M. Blandin was unwilling to admit, although he confessed he could not otherwise understand the phenomenon, either that the intestine had spasmodically contracted on and closed the eyes of the sound, or that clots of fecal matter had obstructed them. He closed by professing his intention here-

after to employ in such cases a more voluminous sound, pierced with a single eye at its extremity in the direction of its axis, as he believes that through an instrument of this kind the fecal matter would pass more easily.

The following very simple and easy method of detecting the presence of sugar in the urine of diabetic patients is practised in the Paris hospitals: Pour a small quantity of the urine into a glass tube, to which you add a few drops of the aqueous solution of the sulphate of copper, the tube being held in the flame of an alcohol lamp until the liquid boils. If the urine is healthy it produces no action on the salts of copper, and the liquid preserves the beautiful blue color which has been imparted to it by the copper; but if the urine contain sugar, this effects the decomposition of the salt, and as soon as ebullition takes place the mixture is observed to pass first to a green, afterwards to a fawn color, which is more deeply marked as the proportion of the sugar is greater. Liquid caustic potash may be substituted for the sulphate of copper, in which case the color of the mixture varies according to the amount of sugar present, from a yellow to a more or less deep brown.

In the minds of many practitioners the efficacy of iodine injections in the radical cure of hydrocele is still a question, and must remain so until still further testimony is added to that already on hand, which is not a little. A case occurred not long since at *Du Midi* hospital, in the service of Vidal, which I think may be regarded as almost unequivocally favorable to the value of iodine, and such, as will presently appear, was also the opinion of Vidal himself.

The patient was 43 years old, a house painter, who, about a year previous to his admission into the hospital, noticed for the first time an abnormal volume of his right testis. The organ gradually increased to the size of a man's fist, fluctuated, was regular, and offered the characteristic transparency of hydrocele. Some eight months after the appearance of

the affection the patient presented himself to Vidal, who punctured the tumor and injected into the tunica vaginalis a little common wine in which had been boiled some Provins' roses. In ten days the serum re-accumulated in the vaginal tunic, formed a tumor almost as voluminous, and possessing the same characters as the first, especially the very marked transparency. Vidal again punctured it—and, with the view of more successfully irritating the tunica vaginalis, added this time a third of alcohol to the wine which he used for the injection. But in this attempt he was as unsuccessful as he had been in the former, for the hydrocele was re-formed and acquired in eight days the same volume, and in eleven days the same transparency.

The patient returned to the hospital on the 10th of December in order again to submit to the puncture and injection of the tumor, which latter was this time performed with the tincture of iodine (equal parts of water and tincture of iodine.) I should not omit to mention that this and the previous injections were made twice, and allowed to remain ten minutes, or thereabouts, in the vaginal tunic. The tumor was reproduced in a few days, diminished, somewhat, however, in volume, and remained stationary during the greater part of a month. A third relapse might have been anticipated, but the tumor presented none of the characters of the former; it was hard, unequal, sufficiently heavy to embarrass the patient, and not at all transparent. Vidal declared that a cure had been effected, but a slow one which he must aid, so on the 14th of January a vesicatory was placed on the right side of the scrotum. On the 18th, although the tumor presented some of the characters remarked previously to the application of the blister, it had sensibly diminished, and become somewhat painful. The blister was allowed to dry. The tumor had diminished considerably on the 21st, when Vidal ordered it to be covered with a coat of mercurial ointment in order to hasten resolution. The 28th, the volume of the two organs is the same, and the right, which hitherto has been painful, is now so no longer. On the 30th the tes-

tes have returned completely to their healthy state. This, although a tardy, is nevertheless a perfect cure, and it may, in my opinion, be fairly attributed to the influence of the iodine. I may remark that it agrees, in many respects, with the cases of slow recovery cited by Velpeau when on the subject of iodine injections in the surgical treatment of hydrocele.

The following curious case occurred not a great while since in the wards of M. Roux, at the Hôtel Dieu. The patient was a very robust man, 45 years of age, who has suffered for a month past from pains in the head, weakness in the legs, and general languor. Some days since his physician ordered him to apply twenty leeches to his anus, which was done, and immediately after their removal the perineum and scrotum became painful, red, and apparently erysipelatous. The pain and redness soon gained the abdominal parietes, and on the fifth day the abdomen was tense, red in its two inferior thirds, and seemed occupied by a vast phlegmonous abscess, and the scrotum itself appeared to be the seat of the same affection. Besides this there appeared to be a blenorrhœa of five or six years' standing; though he has never had any difficulty in urinating, and the jet has always been sufficiently large; only for the last two or three days he has had frequent desire to micturate, which, when done, is followed by very violent burning sensations in the urethra. A large catheter was introduced into the bladder with facility and gave issue to a large quantity of urine, notwithstanding the patient had urinated not an hour before. From what does this phlegmonous condition of the abdomen, accompanied by the most distressing pains, proceed? Is it an erysipelas occasioned by the bites of poisonous leeches? After an attentive and very minute examination, a severe palpitation of the diseased parts of the scrotum and perineum induced M. Roux to believe that there was urinous infiltration; and without delay large oblique incisions, from without inwards and from above

downwards, were made upon the two sides of the abdomen; another, parallel to the median line of about twelve or fifteen millimetres in depth, and five or six centimetres in length; finally, a fourth was made from the top to the base of the scrotum. These incisions were really frightful, as well from their extent, as their depth, and situation. It seemed for sometime as though the testicle might escape and the intestines protrude through these different openings. But none of the serous cavities had been penetrated; neither the tunica vaginalis nor peritoneum had been injured, and the wounds gave exit only to a very large quantity of blood, mixed with a fetid ammoniacal urine.

The diagnosis of this rather remarkable case was rendered doubly difficult, by the absence of every known and appreciable cause with which we are able to connect this urinous infiltration. There would have been infinitely less embarrassment if the patient had been affected with stricture of the urethra, paralysis of the bladder, etc. Although the patient declares that he never attempted catheterism, there is no certainty that such efforts have not been made, perhaps by himself, and which have resulted in the formation of a false passage, which was the habitual cause of the retention of the urine.

In July, 1845, in a paper communicated to the Academy of Sciences M. Jobert (de Lambaille) has described a new method of operation which he had substituted for the one called *élytroplastic*, and which he designates *autoplastic par glassement;* at the same time he reported a case of vesico-vaginal fistula, occupying the whole extent of the urethra and of the vesico-vaginal septum, to about half a centimetre from the neck of the uterus, which he had completely cured by this operation, and which I proceed to describe, illustrated by the history of one or two cases.

Vesico-vaginal fistula seated at the left side of the vagina directed from before backwards, at least six centimetres in length, complicated with loss of substance, separation of the borders of the fistula, and hernia of the bladder.—Approximation of the lips of the wound by interrupted sutures.—Lateral incision comprehending the whole thickness of the walls of the vagina, directed from behind forwards, and practised on the side opposite the fistula.

Case I.—A woman, aged 22 years, entered the Saint Louis hospital on the 26th of June, 1846, to be treated for vesico-vaginal fistula supervening upon a tedious and difficult accouchment. Of a strong constitution, this young woman had never had any serious disease. She was married in her twentieth year, and gave birth to a child the year following, (September, 1845). The labor lasted eight days, and, proceeding with great slowness, the accoucheur was not called until the fourth day after the first pains had appeared. Every endeavor that he made to accelerate it was ineffectual, and on the eighth day he decided to terminate the labor by performing the operation of cephalotripsy. For three days the patient had not urinated.

After the delivery, intense pains were felt in the vesical and hypogastric regions. During the first eight days no difficulty was experienced in the passage of the urine. At the end of this time while the patient was turning herself in bed she felt a foreign body, of a dark color, about the size and dimensions of an almond, suddenly escape by the vulva, and at the same instant her bed was inundated with a gush of liquid, which from that moment has not ceased to flow. After the fall of the eschar, and the formation of the vesico-vaginal fistula, the strength, vital force, and *embonpoint*, even, soon returned, and in the space of a few weeks the woman was in full convalescence.

Notwithstanding the continual flow of urine it did not prevent her from resuming her occupation, and having in vain edeavored to mitigate her infirmity, she came to Paris and entered the Cochin hospital in the service of M. Michon; here she remained for three months, during which time, although she underwent many cauterizations with the red iron and nitrate of silver, no amelioration was obtained in the

state of the fistula, and the patient, demanding to be dismissed, came to the hospital Saint Louis, when the following symptoms were observed: There no longer existed any disposition to urinate; the urine which had ceased to pass by the urethra, fell, involuntarily, drop by drop, into the interior to pass afterwards to the exterior in a continuous manner, whatever the position assumed by the patient. The index finger, introduced into the vagina a certain depth encountered, on the anterior wall of this canal, a large opening by which it easily penetrated into the bladder. Upon a careful examination of the diseased parts proceeding from without inwards, about the vulva, the perineum, and particularly on the internal and superior part of the thighs, a multitude of small, reddish tubercles were observed, hard and irregular, which seemed to be developed at these points entirely by the prolonged contact of the urine with the integuments. Besides this eruption, all of the skin contiguous to the genital organs was red, sensible, and hard to the touch; it was deprived of the epidermis in many points, and the urine which was continually discharged upon its surface produced smartings and very painful itchings. Except this, the genital organs presented nothing particularly noticeable.

The neck of the uterus examined with the speculum is normal. The fistula is situated on the anterior wall of the vagina, four centimetres behind the *meatus urinarius*, about five millimetres to the left of the median line, and is of a longitudinal form. Its dimensions in this course are more than six centimetres in extent, and its length occupies the greater part of the fundus of the bladder in such a way that it almost reaches the neck of the uterus. Its transverse diameter amounts to some centimetres; its borders are regular and seem as if cut; they are in a state of considerable and permanent distension; the orifice of the fistula remains open, and a portion of the bladder forms a hernia through this opening. The female sound introduced by the canal of the urethra, traverses the bladder, arises in the vagina, and may be brought back to the vulva if a see-saw movement is made.

As to the general state, it is satisfactory. The patient ardently desires the operation for which she has been for some days preparing, by the use of baths, injections, and clysters.

On the 2d of July, M. Jobert performed the operation in the following manner: Except the securing of the hands and feet together, the patient was placed in a position similar to that pursued in the operation for stone. The speculum with one valve was now introduced into the vagina, so as to depress its posterior wall; two assistants separated at the same time the large and small lips; this allowed the operator to perceive the neck of the uterus, and seizing it with the forceps of Museux he drew it outwards by light and moderate traction. The neck of the uterus in being displaced has drawn after it the fundus of the bladder, and consequently the fistula; this, presenting itself now at the entry of the vagina, became more accessible to the action of the cutting instruments. The borders were pared with the scissors and bistoury. This was the second step of the operation. A curved needle, armed with a double thread well waxed, was firmly fixed at the extremity of a needle bearer, and the left border of the fistula, being seized with a pair of forceps, was traversed by the needle from without inwards; this, deprived of its support, was brought back by the orifice of the fistula into the vagina. The needle being fixed to the extremity of the instrument was again introduced into the bladder, and penetrated from within outwards the corresponding border of the fistulous orifice; it was afterwards drawn into the vagina bringing after it the thread with which it was armed. This thread was thus disposed in the form of a loop to the inferior cavity in the thickness of the inferior lips of the fistula, in two corresponding points and about two lines from their inferior border. The two extremities of the thread were afterwards drawn out and maintained at the exterior, whilst, proceeding always from behind forwards, five other threads were successively passed through the corresponding borders of the fistula. All these threads were placed sufficiently near one another to prevent any free space from existing

between them after the lips of the opening were brought together. After having withdrawn the sound from the bladder an incision, five centimetres in length, was made upon the right side of the vagina and the part of this canal which corresponded to the fistula. This incision immediately relieved the tension of its lips and allowed them to be readily brought in contact. M. Jobert now seized the first thread, and drawing lightly upon the two ends, the borders of the fistula came exactly in contact. A double knot was made to maintain them in this position, when the two ends of the thread were cut, in order, so to speak, to smooth the knot. The four remaining threads were tied, and afterwards cut in precisely the same manner.

The neck of the uterus, being freed from the hooks, returned immediately to the bottom of the vagina, which was repeatedly injected with cold water, and the operation was completed by the introduction of a light tampon consisting of a cylinder of agaric (*Polyporus igniarius*). The patient was carried to her bed with a sound to remain permanently placed in the bladder. Infusion of tilia (*tilia Europa*) to be given in a draught, with one ounce of syrup of poppy. During the day the patient had very little pain; but during the night she had not a moment of repose. The urine has passed perfectly well by the sound.

The 3d of July, a little fever; pulse at 80; skin hot; considerable thirst. The urine continues to pass wholly by the sound. Tilia, antispasmodic syrup of gum.

4th. The fever no longer exists; the urine has flowed by the sound, nevertheless the cloths placed under the seat of the disease are wet in some points.

5th. The sound was obstructed during the night and a quantity of urine was found under the patient; but upon the introduction of a new sound the urine resumed its usual course.

6th. The sound gave passage to the urine; the same was the case the days following; nevertheless the patient com-

plained more than once that she felt the urine drop upon herself, and in the morning when it was changed the cloth was found wet.

From the 15th to the 24th of July, the urine passed almost entirely by the sound. The patient, moreover, had an appetite, tranquil sleep, and appeared to have entirely recovered from the operation.

On the 24th she was examined; one of the threads had fallen upon the posterior wall of the vagina; the others were cut with the scissors and drawn out by the forceps. When the finger was introduced into the vagina it was ascertained that the union of the fistula was complete. During the day the sound was not allowed to remain in the bladder; the patient was sounded very frequently, and every time nearly a glassful of urine was obtained.

The 25th, the sound was introduced and allowed to remain, and almost the whole of the urine passed through it.

The 29th, the patient was again examined, and the last portion of the thread removed from the vagina.

The 30th and 31st, a small granulation, seated in one of the points of the suture, was cauterised; the sound allowed passage to the whole of the urine.

August 5th. The patient was examined anew; the cicatrization was complete.

8th. The union seemed permanent.

13th. The sound was withdrawn. The next day the patient declared that she had micturated at will, and been able to retain her urine for quite a long time, but that nevertheless, there was a slight exudation into the vagina. On examination of the parts, nothing was discovered save a little point, almost imperceptible, situated at the posterior extremity of the cicatrix. This was touched with the nitrate of silver.

From the 14th to the 21st the sound remained, to be finally withdrawn on the 21st.

On the 24th, the patient affirmed that not a single drop of urine had flowed by the vagina. When the interior of the

vagina was examined with the speculum, there was found upon the right lateral wall the trace of the incision made at this point. A regular cicatrix at the place of the fistula was observed on the exterior wall; the cicatrix was distinguished from the surrounding tissues by reddish discolorations, and by slight irregularities existing at the points of the suture. The genital organs are perfectly healthy. The general health is most satisfactory.

The 27th December, the patient does not lose a single drop of urine, and is able during many hours' succession to retain a very considerable quantity of urine in the bladder. The disposition to urinate is felt less frequently during the night than the day.

The examination with the speculum reveals only the smallest trace of the ancient fistula; but to the left and right of the median line two perfectly white cicatrices are perceived, which are directed from behind forward. Along the course of the cicatrix of the left side, white depressions corresponding to the points of the suture, are observed. The anterior wall of the vagina has diminished very little in size. The orifice of the urethra has almost regained its natural calibre, and the abnormal granulations that it presented has yielded to a few cauterizations with the nitrate of silver.

Finally, the patient has recovered her cheerfulness, bloom, and *embonpoint.*

Vesico-vaginal fistula of the fundus of the bladder.—Autoplastic operation.—Recovery.

Case II.—A woman, 24 years of age, and of strong constitution, entered Saint Louis hospital on the 3d of December, 1845. She had menstruated at the age of fifteen years, and married at twenty. Her first child had been extracted by the forceps, three days of pain not sufficing to effect its natural expulsion. She became pregnant a second time, was brought to bed at the full period, and as the labor was not more successful than the former had been, the cranium of the child was perforated, and the delivery effected by

means of instruments. The operation occupied almost two hours, and was followed by violent inflammation of the genital organs. The first days after the accouchement offered nothing particular; the urine was evacuated voluntarily, and did not, in fact, pass by the vagina until after the lapse of six days. It passed at first only in part by the fistula, the reason of which was that the eschar was only partially separated, for as soon as it became wholly detached, the urine passed altogether by this opening. From this period the urine escaped involuntarily and incessantly, whatever might be the position of the patient.

The following was her condition on admission into the hospital.

1st. The genitals are constantly bathed with urine.

2d. All the parts with which the urine was in contact were erythematous, red, or tuberculous.

3d. The vesico-vaginal wall was irregular, unequal, and furrowed in a way which denoted the existence of ancient losses of substance, and cicatrized ulcerations.

4th. The neck of the uterus was irregular and ulcerated.

5th. In the track of the urine calculous deposits were found.

6th. In front of the neck of the uterus the touch detected a depression where the vesico-vaginal wall appeared manifestly diminished in thickness.

7th. The introduction of a liquid into the bladder immediately revealed the site of the fistula, for as soon as it entered the bladder it escaped by the vagina in the form of a continued jet.

8th. The introduction of the speculum presented to the eye a hard depression formed by the inodular tissue, and at the bottom of which a large sound may be passed directly into the bladder. The instrument passed along the neck of the uterus, which seemed grooved in order to assist in the formation of the fistula. While the patient sits up she is able to retain a small quantity of urine in the bladder.

9th. The patient is irritable, agitated, and the intellectual

faculties sensibly disturbed. This is not the first woman in whom we have seen grave changes occur in the functions of the nervous system, on account of serious lesions of the bladder.

10th. When the patient coughs the urine escapes by jets.

The direction and extent of the fistula having been ascertained, and an operation being judged indispensable, M. Jobert prepared the patient by baths, emollient and narcotic injections, and purgatives. When in the proper condition, he practised, on 23d of December, the autoplastic operation in the following manner:

The woman was placed upon a bed, the legs flexed upon the thighs, and the thighs upon the pelvis. The speculum with two valves was introduced and the neck of the uterus drawn to the exterior by means of Museux's forceps; then Jobert pared away from both the interior of the fistulous channel and the vaginal circumference of the fistula all the parts which seemed indurated. The vagina was afterwards detached from its connexion with the neck, when it immediately became easy to apply three points of the interrupted suture in order to maintain the lips of the fistula in contact. The bleeding surfaces were thus brought together without any difficulty, and without the slightest distension.

A sound was afterwards placed in the bladder, and an oat-chaff cushion under the knees.

On the day of the operation a sanguinolent urine first passed by the sound, but soon became clear and transparent. There was a little vesical tenesmus for sometime after the operation, but the pulse remained at 70.

On the 24th, the patient was allowed some broth; nothing particular was observed.

25th. A slight vesical tenesmus reappeared, but there was no fever nor any untoward symptom. In the afternoon she withdrew the sound and evacuated her urine spontaneously.

26th. The urine flowed by the sound alone until in the

afternoon, when the patient withdrew and afterwards returned it without experiencing any inconvenience.

28th. The patient was not more manageable than she had been the preceding days, but urinated in part by the canal and in part by the sound.

Until the 11th of January she at times allowed the sound to remain, and at times withdrew it, and notwithstanding all these indiscretions, as we shall see in the end, she was completely cured.

The threads had been permitted to remain, and it was not until the 11th of January that the neck of the uterus was examined previously to their removal. The urine at this time (11th January) no longer passed by the fistula, but escaped in a continued jet from its reservoir whenever the patient endeavored to urinate, and she was able to retain a large quantity for a considerable length of time. When the speculum was introduced one of the threads used in the suture was discovered, and removed with the forceps.

January 15th. The patient had frequent desire to micturate; the speculum being again introduced, another thread was found and withdrawn. In the course of the following days the irritability of the bladder disappeared; all the urine was passed by the urethra.

Until the 6th of February everything progressed in the most favorable manner, notwithstanding the indocility of the patient, who had been over and over again guilty of imprudences, quite sufficient to compromise the cure of the fistula. She was on the point of being sent to her family, when, on the night of the 7th, she was seized with a well-marked paroxysm of mania. At the visit the next day, she was found in a state of considerable agitation; she did not utter a single word; the face was animated; eyes haggard; pulse accelerated. [Venesection; twenty leeches upon the mastoid processes; ice to the head.]

The maniacal condition continues; the patient sings, and is continually endeavoring to escape; great incoherence of ideas. [The straight-jacket was applied; fifteen leeches be-

hind the ears; antispasmodic draught; vaginal injections.] From this time until the 12th of March she has almost uniformly refused to reply to the questions that have been put to her, and although the restlessness has been less, her reason is constantly disordered. New bleedings have been practised, many blisters applied to the neck and the mastoid processes, without producing any notable amelioration in the condition of the intellectual faculties. In this state the patient was removed on the 12th of March to a lunatic hospital. The examination with the speculum revealed the final result of the operation, which the patient had undergone. The neck of the uterus being seized and drawn towards the vulva, the point of the bladder which had been occupied by the fistula was easily recognized; there remained in its place a linear cicatrix a little depressed, a centimetre and a half, or thereabouts in extent, very solid and in every respect perfect, no fistulous opening remaining on its surface. When pressed with a compress or pair of forceps, it remained dry, furnishing not a drop of urine. The cure of the fistula was radical and complete.

Case III—relates to a Creole woman, aged 35 years, who had labored for ten years under a vesico-vaginal fistula with loss of substance, for which two operations had already been attempted without success. The fistula consisted of an enormous transversal slit about thirty-seven centimetres in size seated at the fundus of the bladder, entirely behind the level of the neck of the uterus, in such a way that the latter organ formed, in some manner, the posterior lip. The borders were hard and callous, the neck of the uterus itself diseased, ulcerated, and softened; the vagina indurated, painful, and presenting in various points calculous deposits, notwithstanding the incessant care and attention to cleanliness on the part of the patient.

M. Jobert operated on this patient on the 21st of October, 1846, in the presence of Professors Begin, Bouillaud, and others. The circumstances attending, and the phenomena

which followed the operation are embodied in the preceding cases, it only remaining to be added here that there was no traumatic accident, and that from the time of the operation not a single drop of urine passed by the fistula, but the whole of it was discharged by the urethra, which had not given passage to it before for ten years. The first of the threads was removed on the 1st of November, when the adhesion of the lips of the wound was perfect, and on the 5th the union was already very solid.

On the 11th, the sound was withdrawn, but was introduced every two hours, and in the intervals the urine accumulated in the bladder; sometimes a few drops escaped by the urethra, but none passed by the fistula.

On the 22d, the patient urinated without assistance, and was able to retain the urine.

27th. The menses, suppressed for the last ten years, and replaced by an anal hemorrhage, were re-established, and on the 5th of December, when the patient was examined by Professors Begin, Bouillaud, &c., she was perfectly cured, and on the 10th set out for Marseilles.

Vesico-vaginal fistulæ, and particularly those affecting the fundus of the bladder, are among the most frightful infirmities to which the female is liable after difficult labors, and, when of considerable extent, are even now regarded by many of the most eminent writers in the profession, as beyond the reach of surgical art. But from these cases of M. Jobert we are justified in forming a more favorable prognosis. This surgeon stands deservidly high in France, and his reports may be confided in for accuracy and fidelity. His operations unquestionably have a title to a very high rank among the achievements of modern surgery. He promises at a future meeting of the Academy of Sciences to give the physiological and pathological reflections suggested by these cases.

While Germany has given to war, in the past year, another element of destruction in the cotton-powder; and France

has assigned to Neptune, the fabled god of the seas, a place among the stars, America has made a richer offering to humanity in disclosing the precious virtues of the vapors of sulphuric ether. If the conquest of a new agent of attack and defence, if the discovery of a star, before unknown in the firmament, creates so lively an interest in the mind of every one, what should be the sensations caused by the application of an agent through whose mysterious powers the human constitution is made insensible to the pain attending surgical operations?

To Jobert belongs the merit of having made the first attempt, in France, to intoxicate with the vapors of sulphuric ether; his subject was a patient from whom he wished to remove a cancerous tumor of the lip. But from the defective apparatus for its administration, and some other unfavorable circumstances, his patient, though a man 59 years old, and though evidently affected, was not brought sufficiently under the influence of the ether to lose his sensibility, and thus the first experiment was considered as rather contradictory of the reports from the other side of the channel, where, at that time, the power of the ether to allay pain in surgical operations was verified every day. Malgaigne, also of St. Louis hospital, was the first French surgeon who succeeded in producing, by the gas, a degree of insensibility sufficiently great to destroy the pain of an operation. To the Academy of Medicine at its session on the 12th of January, the last named gentleman communicated the history of five cases in which he had used the ether, of which the following is a detailed account.

I. A young man, aged 18 years, having a suppurating phlegmon at the inferior part of the leg, was made to inhale the sulphuric ether for ten minutes, which sufficed to plunge him in a complete lethargy or sleep, during which the abscess was opened with a bistoury. The patient raised up half a minute after, declaring that he had felt nothing, and he did not even believe that he had undergone the operation.

II. An Italian, somewhat older, affected with a tumor of the neck, breathed the ether for five minutes; after returning to himself he said that, although he had been conscious that the tumor was being removed, he experienced no pain.

III. A young woman presenting also a tumor of the neck, lost consciousness after inhaling the ether for ten minutes, and although she did not feel the first incision, she recovered immediately after and suffered during the remainder of the operation as much as if she had not inhaled the ether.

IV. A man who had had his leg crushed by a railroad car passing over it, before submitting to its amputation, inhaled the ether for seventeen minutes, when lethargy being produced the limb was removed, and after he had recovered from his stupor, he declared that notwithstanding he had been conscious throughout of the removal of the limb, he had felt no more pain than if it had been slightly scratched with the point of a pocket knife.

The fifth and last operation was for strabismus in a young man; he breathed the ether for ten minutes without its seeming at all to affect his constitution, when he relinquished the attempt, and, of course, suffered during the operation as would a patient under ordinary circumstances.

Professor Roux obtained, a few days after, an incomplete result in a man aged 45 years, who had fallen on the pavement and broken his leg, which, from the severe consecutive lesions, finally required amputation. The patient inhaled the ether for twenty minutes, at the end of half of which time his eyelids fell, but he still answered questions.—The operation occupied twenty minutes, and I am inclined to believe that the man, in whom the pain was notably diminished, would not have cried out had not the students from all parts of the theatre repeatedly shouted, "Cry, cry, why don't you cry, now?"

The *Gazette des Hôpitaux*, of the 19th of February, contains three other cases of the inhalation of the vapor of ether, presented in the wards of Malgaigne. A man, 35

years old, of a nervo-sanguineous temperament, presented, at the internal and inferior part of the right leg, and on the surface of the right internal malleolus, a phlegmonous abscess. Two or three minutes sufficed to put the patient into a state that may be compared to intoxication; indeed intoxication is the word generally used now in Paris in referring to the effects of the ether. After he had answered affirmatively to the questions, whether he felt anything peculiar, whether his sight was troubled? etc., M. Malgaigne, with a bistoury, made on the surface of the abscess and portion of the skin, abundantly supplied with nervous filaments and manifestly inflamed, a longitudinal incision about three or four centimetres in length. The borders of the wound were pressed in order to expel the pus contained in the abscess, during the whole of which procedure the patient gave no sign of pain. The operation being completed, the patient appeared agitated and nervous; his face became red, and his features contracted, the eyelids tightly closed, the muscles in general, and especially those of the face and superior extremities, appeared in a state of abnormal contraction; and from the manner in which, with his eyelids still fast shut, he spit his saliva about in every direction, it was evident that he had lost his reason. This condition of things, however, lasted only two or three minutes, when being interrogated as to what he had felt during the operation, he replied that the pain had been slight, and he knew of no better comparison than to liken it to a slight prick with a sharp instrument. Immediately after his return to consciousness the patient complained of pain, if the lips of the wound were pressed with the finger.

A man, aged 45 years, affected with whitlow of the index finger of the right hand, which made it necessary to remove the member, inhaled the vapors of the ether, at first without effect, owing to the stupidity of the patient who was unable to understand how it should be breathed. However, after he was made to comprehend the mode of inhaling it, it pro-

duced intoxication in four minutes, albeit not as perfect as in some other cases, but still to a sufficient degree to diminish the pain so much that he too compared it to a slight prick. The pulse of the patient rose to 88 during the inspiration and attained 92 after the operation.

A girl, about 18 years old, having an affection of the right hand, for which Malgaigne wished to make an incision, was submitted for four minutes to the inhalation of the ether, when the sight became troubled, and an incision of four or five centimetres in length was made on the back of the hand. The sensation experienced was compared by this patient also to that caused by a pricking instrument. What was especially remarkable in this case was the insensibility, a species of stupor, or rather the numbness of the wound, which persisted for a much longer time than in the other patients. For a number of minutes after the operation the fingers or stylet might be plunged into the wound without the patient complaining of any pain. Finally, the sensibility returned, and the patient said she had a burning or scalding sensation on the surface of the wound.

The wards of Prof. Bouillaud, of course, afford no surgical cases, but, as it is fresh in my mind, I may mention a very striking example of the powers of the ether in a young chlorotic girl, who had a very painful and slightly decayed molar tooth, requiring extraction. After inhaling the ether for six minutes her eyelids closed, and she gave every evidence of intoxication. Her mouth was fast shut, however, and the *externe*, who was acting dentist, was quite at a loss how he should introduce the turn-screw; but the patient, while apparently unconscious of everything going on around her, on being told to open her mouth, immediately did so, and although three different attempts were made before the whole of the tooth was extracted, she gave not the slightest manifestation of pain, and on recovering, to the question of whether she had suffered, she replied, "not in the least."

A similar operation, rather more skilfully performed how-

ever, attended by similar success, occurred the morning before, while I was in the ward; but so perfectly still was the patient—who on regaining consciousness testified in terms equally strong to the total absence of pain—that I was not aware of it until it was over. I learn from M. Bouillaud, the *chef de clinique*, that several other teeth have been drawn from patients in his wards under the influence of the ether, and in every instance with the most perfect success.

Among the first, if not the first patient whom Velpeau endeavored to intoxicate with the ether, was a man who, after having inhaled it for fifteen minutes without its producing the desired effects—which was attributable, I think, to the fault of the apparatus, an ungainly fixture that had been constructed in the hospital—had his finger removed amid as much pain as this operation usually occasions. Velpeau, on the 22d of January, provided with a much better apparatus, proceeded to remove a tumor about the size of the head of a small fœtus, one similar having already been twice removed, occupying the posterior and superior region of the left thigh. The patient being placed on his belly, had scarcely breathed the ether for four minutes when his head fell upon the pillow, he ceased replying to questions, and his limbs were in a state of complete relaxation. Velpeau removed the tumor in less than two minutes; tying the vessels required a little more time; the patient moved, the apparatus was placed before his mouth, and he awoke no more till the dressing was applied. On being asked if he had suffered, he replied that he had not, but on the contrary had felt exceedingly comfortable, and assured M. Velpeau that this new method was *la bonne methode.*

Larrey, one of the assistants, being struck by the relaxation of the muscles of this individual, suggested that the ether might be of value in the reduction of luxations, by controlling the violent muscular contractions in robust subjects. A short time afterwards he had the pleasure of seeing, in the same room, a dislocated shoulder joint, in a very powerful man, which had resisted all attempts at reduction, easily returned to its proper position when the patient was brought under the

influence of the ether. When it is remembered that the subject of the preceding observation had submitted twice to the same operation, previous to the discovery of the powers of the ether, it becomes one of the most conclusive facts in its favor.

The next, a case that occurred in the service of Vidal, at *Du Midi* hospital, seems to prove that the ether may exaggerate instead of lessening the sensibility. The patient, æt. 24 years, laboring under a varicocele, was given the ether without success, owing to the difficulty which he experienced in properly inhaling it. The next day, however, intoxication was produced in the course of twenty minutes, but, unlike any of the former examples, it made the patient very gay, while it rendered his sensibility much more acute.

Another case in which the sensibility was greatly augmented, I saw in the amphitheatre of Prof. Roux. In this instance the patient, who had an abscess of the neck, after breathing the ether for a considerable length of time, suddenly jumped from his chair, commenced screaming, and made various rapid and excited gestures. Being very soon reseated, the professor plunged the bistoury into the abscess, which seemed to give great pain, and the patient expressed himself as having suffered excessively.

It is a question in my mind whether, if this patient had been made to inhale the ether for some moments longer, insensibility and stupor would not have been induced. The opinion of many of the Paris surgeons, as set forth in the medical journals, seems to be opposed to continuing the inspiration of the ether in refractory subjects, that is, in those who become excessively agitated and excited. But in support of the hint thrown out—which, however, I by no means claim as my own—I will refer to several cases in which the sensibility, greatly augmented at first, declined at a later stage, and the patients, sometimes in the liveliest and at other times again in rather furious moods, have, after carrying the intoxication still farther, become lethargic, and in neither gave evidence of pain, nor preserved any recollection of having suffered during

the operation. For instance, I witnessed a case of this sort in the service of Velpeau, while I was following a private course at La Charité. The subject, a coachman, had a tumor situated in the region of the parotid gland, where operations are known to be peculiarly painful. The ether soon produced its effects. During the first half of the operation the patient did not move; towards the end, however, he became a good deal agitated, his brows contracted, and he showed a disposition to rise from the table, but the ether was reapplied to his mouth and he again became tranquil. On being asked, when the intoxication had subsided, why he had acted so, he said he had dreamed that he was in a billiard room playing a game with his friends, and getting into a dispute with them, he thought some one in the midst of the quarrel had mounted into the seat of his carriage, which he had left at the door, and was driving off; he was endeavoring to go out and stop him. Another instance of similar bearing I saw on the operating table of Blandin, in a woman of nervous temperament, who, after breathing the ether for a few minutes, became very much excited, attempted to pull the tube from her mouth, and would have succeeded in doing so but for the efforts of two assistants. In a short time she became calm, her head fell back on the pillow, and Blandin striped her knee four times with the actual cautery without her feeling any pain, or even believing, when she recovered her consciousness, that the operation had been performed, until the trace of the iron was shown to her.

M. Guersant, jr., surgeon to the Children's Hospital, among many other cases which I shall not detail, administered the ether to two girls before performing on each a very painful operation. The first, aged 12 years, after inhaling the ether for only two minutes, appeared completely insensible during the whole of the time occupied in the disarticulation of the index finger. Towards the end of the operation, she commenced crying, and, after recovering, said she felt him pulling the flesh, and had wished to cry but found it impossible to do so; and she stated, moreover, that she had very distinctly felt

him pinch it twice before he removed the finger. The other patient, likewise 12 years of age, after inspiring the ether two minutes, appeared plunged in a profound stupor. The first incision was made without any manifestation of pain, but M. Guersant had hardly introduced his finger into the wound before the patient screamed violently. She was again made to inhale the vapors of the ether, and the operation was terminated without her giving any other sign of suffering. Her pulse became very small and slow, and remained for quite a long time in this state. The patient had no recollection of having suffered any pain.

On the 19th of January, M. Jobert amputated the right thigh of a young man twenty-four years of age. He became very gay after inhaling the ether for twenty minutes, but soon after showed all the symptoms of intoxication, accompanied with threats and menaces; so violent, indeed, was his excitation, that he was obliged to be held while Jobert removed the limb. The operation being completed, the patient was shown his lost member. With a very long face, he said he "regretted that he could no longer dance as formerly," but, soon brightening up, congratulated himself "that he would no longer be annoyed by a corn on one of his toes." The tying of the vessels gave more pain than the amputation.

M. Gerdy presented to the Academy of Sciences, on the 25th of January, several cases of patients submitted to the vapors of ether, of which the following epitome may be interesting:

A young girl intoxicated, or benumbed, if you think the word preferable, with the ether, lifted her hand to her neck, but uttered no cry, while an incision was being made there; she returned to consciousness a few moments after, laughing most heartily, but did not speak of the incision on her neck; while walking to her bed she staggered a good deal.

A patient operated on ten or twelve days before for a strangulated hernia at the groin, allowed the intestine to escape below the cicatrix of the first operation; Gerdy attempt-

ed reduction, but the patient evidently suffered during these efforts, notwithstanding the inhalation of the ether.

Another patient, who was the subject of a cataract for which Gerdy wished to operate by extraction, was made lethargic by the ether. He pricked and pierced the cornea, but the eye became so unsteady that he was obliged to abandon the operation. Gerdy attempted now to depress the cataract, but the eye continued so unsteady that he was compelled to relinquish this also. He then pricked the nose and lips and afterwards the hand of the patient, who on returning to himself, although he remembered very distinctly having been pricked, did not speak of any pain felt in the nose or lips.

In the case of a patient who had been operated upon a short time previously for a fistula in ano, which had not progressed as favorably as could have been desired, the matter having burrowed beneath the integuments, it became necessary to remove a portion of the skin near the anal orifice. The patient inhaled the ether until its characteristic effects were produced, when the operation was performed, and although he suffered much less from this procedure than had been caused by the mere dressings the day before, still he experienced some pain.

A young woman was able to undergo a dilatation of the vagina after breathing the ether, which she could not bear before. She returned to herself soon after, became excessively gay, and was at first incapable either of walking or supporting herself.

I saw M. Boyen amputate the leg of a woman about forty years old, of nervo-sanguineous temperament, who had been rendered insensible by the vapors of the ether. She did not make the slightest movement, and, on the effects passing off, said that she remembered nothing of what had been done to her.

A woman of the same age and temperament had a tumor of the right breast, which I saw Blandin remove while she was under the influence of the ether, without her making any de-

monstration of suffering, or retaining any recollection of the operation.

Velpeau amputated the leg of a young man previously inebriated by the ether, without his giving the least evidence of suffering. When the third arterial ligature was applied, he cried out, but on returning to himself he did not know why he had done so, for he had felt nothing; and, in accounting for the incoherent sentences uttered by him towards the end of the operation, said they had arisen from his having thought of the unfortunate condition of his family.

On another occasion Velpeau removed a portion of the hand of a young man who had been made insensible by the ether. During the first part of the operation he did not move, but before it was finished he became agitated, made gestures as though he wished to escape, and seemed to suffer pain; but on recovering his sensibility he declared that he had felt nothing, and that his movements were occasioned by his dreaming that he was endeavoring to separate two of his comrades in a quarrel.

About the same time, Velpeau removed a man's eye who was under the influence of the ether, and who said, when the operation was over, that although he was conscious of what was going on, he had not suffered the least pain.

Velpeau opened an abscess in the breast of a young woman who had breathed the ether but six times; this was sufficient to intoxicate her, and when she recovered her consciousness she exclaimed, "Why did you not operate upon me while I was asleep?"

Some time before, a man entered his wards at La Charité with a fractured thigh. The subject was robust, vigorous, and extremely muscular; he was also excessively impressible, was affected with a species of convulsive movement, and it seemed as though it would be difficult to restore the wounded limb to its normal form and strength. After breathing the ether for some minutes he became insensible, although he was somewhat agitated and spoke incoherently, but his muscles were relaxed, yielded to the least traction, and al-

lowed the member to be reduced with the greatest possible facility. When all was finished, the patient said, on recovering his consciousness, that he had not been aware of a single thing that had been done, and only complained of having had an unpleasant dream.

Another patient, a young girl who was subject to nervous attacks, was submitted to the influence of the ether a day or two before it was proposed to remove the nail from her great toe. She soon became insensible, but, on recovering from this state, was taken with a convulsive fit. The next day a new administration was again followed by insensibility, which, as before, was succeeded by convulsive paroxysms; but as the patient complained in no respect, the ether was again administered, and the operation performed without her feeling the slightest pain. On recovering she experienced a long and very intense convulsion. During the operation she raised herself up as if to see what was going on; but she felt nothing, and did not reply to any of the questions put to her. She has since said that she dreamed of assisting at a wedding. M. Velpeau asks, "If the nail had been removed without making her breathe the ether, would she not have had equally, perhaps more violently, these convulsive movements?"

A young physician who experimented upon himself, became insensible very soon without losing his consciousness; he was even able to indicate various experiments that he wished performed, and he stuck pins and a lancet into his flesh without feeling them.

There have been many other examples where the patients continued to see, hear, taste, smell, and perceive what was passing around them, while their sensibility for the time being was totally abolished. This preservation of the ordinary powers of sensation and complete loss of all abnormal feelings, has suggested the following question to the mind of Malgaigne: "Are there in the brain two centres of sensation, one for the normal and the other for those which are abnormal?"

The following is a list of the operations performed in Paris up to the 1st of March, with the names of the hospitals and of the operators:

HOTEL DIEU.

Prof. Roux.—Amputation of the leg, 1; amputation of the thigh, 1; amputation of fingers, 3; tumor of the breast, 1; tumor of the face, 1; removal of necrosed bone, 1; lachrymal fistula, 1; fistula in ano, 2; phymosis, 1; incisions, excisions, etc. 30.

M. Blandin.—Amputation of one of the bones of the foot, 1; amputation of the breast, 3; fistula in ano, 1; cauterization with the red iron, 5.

M. Boyer.—Amputation of the leg, 1; amputation of the finger, 1; removal of a finger nail, 1; moxas, 1.—Total, 56.

LA CHARITÉ HOSPITAL.

Prof. Velpeau.—Amputation of the leg, 1; amputation of the breast, 1; sarcocele, 1; partial amputation of the breast, 1; removal of a cancerous tumor on the thigh, 1; removal of a parotid tumor, 1; extirpation of the eye, 1; partial amputation of the hand, 1; puncturing abscess of the breast, 2; fistula in ano, 2; excision of the amygdalæ, 1; removal of the finger nail, 1; reduction of a luxation of the thigh, 1; reduction of a luxation of the elbow, 1; reduction of a fracture of the thigh, 1; injection of iodine into the articulation of the knee, 1.

M. Gerdy.—Cataract, 1; amputation of the forearm, 1; removal of polypi of the nose, 1; seton, 1; reduction of hernia, 1; incisions, excisions, etc. 4.—Total, 27.

ST. LOUIS HOSPITAL.

M. Jobert.—Amputation of the thigh, 4; amputation of the leg, 1; amputation of the arm, 2; tumor of the breast, 2; various tumors, 3; fistula and fissure of the anus, 2; cauterization with the red iron, 2; reduction of a luxated shoulder, 1; hydrocele, 1; incisions, excisions, etc. 20.

M. Malgaigne.—Amputation of the leg, 1; removal of tumors, 2; amputation of fingers and toes, 4; incisions, excisions, etc. 10.—Total, 55.

BEAUJON HOSPITAL.

M. Langier.—Amputation of the thigh, 3; amputation of the leg, 1; excision of tumor, 1; strangulated hernia, 1; moxas, 1.

M. Robert.—Amputation of the leg, 1; section of the tendo Achillis, 1; reduction of a luxation of the elbow, 1.

M. Bouvier.—Section of the tendo Achillis, 1; strabismus, 1.—Total, 12.

HOSPITAL DE LA PITIÉ.

M. Giraldés.—Amputation of the thigh, 1; amputation of the big toe, 2; removal of a tumor, 1; hydrocele, 1; removal of a toe nail, 1; incisions, 2; cauterization with the red iron, 4.—Total, 12.

CHILDREN'S HOSPITAL.

M. Guersant.—Operation for stone, 1; amputation of the thigh, 1; amputation of the arm, 1; amputation of fingers and toes, 5; fistula in ano, 1; cauterization with the red iron, 1.—Total, 10.

COCHIN HOSPITAL.

M. Michon.—Amputation of toe, 1; lithontripsy, 1.—Total 2.

HOSPITAL DE BON LE-COURS.

M. Denonvilliers.—Amputation of a finger, 2; excisions, incisions, etc. 18.—Total, 20.

MAISON ROYALE DE SANTÉ.

M. Monod.—Amputation of a finger, 1; amputation of a breast, 1; circumcision, 1.—Total, 3.

HOSPITAL DES CLINIQUES.

M. Voilemier.—Amputation of a leg, 1; amputation of an arm, 1; other operations, 8.—Total, 10.

DU MIDI HOSPITAL.

M. Vidal.—Varicocele, 2; phymosis, 1; strabismus, 1.—Total, 3.—Grand total, 211.

Of these there were of amputation of the thigh, 10; amputation of the leg, 8; amputation of the arm, 4; amputation of the forearm. 1; partial amputation of the foot, 2; partial amputation of the hand, 1; amputation of fingers and toes, 19; total or partial amputation of the breast, 8; extirpation of im-

portant tumors in different regions, 12; removal of the eye, 1; sarcocele, 1; strangulated hernia, 1; stone, 1; lithontripsy, 1; hydrocele, 2; varicocele, 2; phymosis, 4; fistula or fissure of the anus, 8; reduction of luxations or fractures, 5; reduction of hernia, 1; removal of nails, 4; extirpation of amygdalæ, 1; polypi of the nasal fossæ, 3; cataract, 1; lachrymal fistula, 1; strabismus, 2; section of tendo Achillis, 2; cauterization with the red iron, 12; application of moxas, 2; opening abscesses, incisions and excisions of various sorts, 91.

Of these the following terminated fatally: Amputation of the thigh, 4; amputation of the leg, 3; amputation of the arm, 2; amputation of the forearm, 1; amputation of a toe, 1; amputation of a finger, 1; amputation of a breast, 2; extirpation of tumors, 3.—Total, 17.

Thus in 10 amputations of the thigh there have been 4 deaths, that is, 2 in 5; while in a report by Malgaigne, made in the *Archives of Medicine*, entitled "*Statistical Studies upon the Results of the Large Operations in the Paris Hospitals*," we find that from the 1st of January, 1836, to the 1st of January, 1841, there were 201 similar operations performed, of which 126, or 3 in 5, had a fatal termination. During these five years, there were 852 amputations of members, from disarticulation of the thigh to amputation of the phalanges, in which the general mortality was 332, or about 2 in 5. Of the 23 operations which represent the amputations of the thigh, arm, and forearm, 10 have died, or about 2 in 5. The statistics of M. Malgaigne give 512 amputations of the same kind, and 281 deaths, or nearly 3 in 5.

I have gone into these details for the twofold purpose of showing the rate of mortality in hospital operations in Paris, and of estimating, if we may, the effect of ether upon this mortality. The number of operations is yet too small to justify any definite conclusions upon the last of these points, though it must be admitted that, as far as they go, they in no wise support the assertion of Magendie, that the influence of the ether upon the constitution is deleterious, and would in many cases dispose the operations to unpleasant terminations.

I saw M. Velpeau yesterday morning, (March 22,) who told me that he had operated upon more than forty patients who had breathed the ether with almost uniform success, that is, with various manifestations, had become more or less intoxicated and insensible to pain; and that he did not believe that he could lay to the charge of the ether the fatal termination in a single instance.

The effects of the ether are as various as the constitutions and temperaments subjected to its influence. In some it produces excessive hilarity, and in others anger; now exciting joy, and again sadness; now inducing the calmest and pleasantest, and again the most troubled and painful slumbers; in some persons giving rise to delightful dreams, and at other times awakening those of an unpleasant character, or steeping the faculties in total unconsciousness; now producing the most profound insensibility, but again affecting the constitution slightly, and in still rarer instances exalting all the sensibilities The lover, under its influence, has often dreamed of his mistress, and very many women have dreamed, while intoxicated with it, that they were in heaven.

But this agent, so varied in its effects, and generally so benign in its action, like all substances of intense power, must be used with certain precautions. Already harm has been done by it; death has been produced by insisting on its application in cases where the subject was violently opposed to its inhalation; and, indeed, in instances where there was no repugnance on the part of the patient to be overcome, unpleasant, and, in one case, fatal pectoral symptoms have been traced to its action. The fatal case occurred in the service of M. Jobert, at the hospital St. Louis, and this surgeon has had the candor to avow his belief, that his patient died of a bronchitis brought on by the ethereal inhalation. Statements of this sort would not have been believed, in France or England, four weeks ago; but the rage for the "*letheon*" is beginning to subside, and the faculty of Paris are now scrutinizing its effects, and endeavoring to determine the circumstances which render its application hazardous. Mr. Liston foresaw

and predicted some of the evils which would flow from the indiscriminate use of so powerful an agent. And yet there are those in this city who still profess to doubt whether it has ever done harm in any instance. Velpeau is one of these, and treats all the fears on the subject with derision, holding the agent to be one of equal safety and efficiency. Time and experience must determine the matter. I remember that some cases of phrenitis were published in your Journal two years ago, which were ascribed to the inhalation of ether. If it be capable of doing mischief, we shall not long want evidence of its power, for the hourly administration of it to patients in all conditions, and almost every disease, must soon develop its capacity for evil as well as good.

Since writing the foregoing, I have seen in a Marseilles journal, that M. Pertusio, surgeon of a hospital at Turin, has obtained a very happy result by the aid of etherization in a case of well marked traumatic tetanus. On the 4th of February, a young man was attacked with tetanic symptoms, which by the 13th attained the greatest intensity. It occurred to M. Pertusio that the vapors of ether might avail in the case, and the result of the trial was, almost immediately, the complete relaxation of the muscular rigidity. The tetanic symptoms recurred, however, so soon as the etherization passed away, but were again relieved by its application, which was repeated as many as six times a day. Gradually the symptoms becoming less violent, and recurring at greater intervals, the ether was administered less frequently, and at the end of a week a single etherization each day was found sufficient. The 4th of March, now already eight days since, the patient had not experienced any tetanic symptoms, although the ether was no longer resorted to, and the patient walked about in the ward of the convalescents, retaining merely a slight stiffness in the muscles of the abdomen.

In my next letter I shall have something to report concerning the experience of M. Paul Dubois with ether in cases of difficult labor. For the present, I think you will agree with me, that I have said enough on the subject.

Paris, March 31, 1847.

ART. II.—*A Case of Fistulous Opening in the Lung: Clinical Lectures in New York.* By B. F. WENDEL, M.D., of Murfreesboro', Tenn.

The following is a case of fistulous opening in the lung, the particulars of which were related to me by Dr. Sayre, of this city, under whose care the case now is:

A private, aged 38 years, while engaged, on the 9th of May last, in the action of Resaca de la Palma, received a bullet wound. The ball entered between the third and fourth ribs of the right side, an inch and a half or two inches to the right of the sternum, and, passing upwards and inwards, lodged under that bone near where it is joined by the third rib. Besides this wound, he received various injuries after falling. The ball was removed on the field, four hours after the injury, without much trouble; but little blood was lost. Erysipelatous inflammation soon set in, and this gave rise to a diffuse swelling, which was opened, and discharged about a quart of fetid pus; after which, during expiration, he discovered that air passed through the wound. His general health failed, hectic fever came on, and he remained in the hospital until the 1st of November, when the wound cicatrized, leaving a fistulous opening of the size of a goosequill, communicating with the lung, which still exists. Much of the lung is now impervious to air, gives no vesicular murmur, and is dull on percussion. There is now no discharge at the wound, but when Dr. Sayre's attention was first called to the case, a frothy mucus was emitted. The air passes through the opening with a sharp and loud noise, and with such force that it will extinguish a candle two feet distant. I saw this patient some two weeks since, and when my finger was placed over the opening, he spoke with comparative ease and force; removing the finger, his voice again became feeble. The matter is under consideration, whether the opening shall be closed.

The following is a case of *idiopathic peritonitis*, of which I cannot get the dates accurately, but report the most essential features as communicated to me by Dr. Sayre: A man of mid-

dle age, moderate circumstances, and temperate habits, by trade a ship-builder, was seized on Sunday, while in his ship-yard, with great pain in the abdomen, which he supposed to be colic. Sitting down on a log, he made firm pressure over the seat of the pain, and in a short time was relieved. The Friday following he had a slight chill while engaged in his occupation. The next Sunday he had a chill, and his wife called in medical aid; but he treated the physician rudely, and would not take the prescription, saying there was nothing the matter with him. Being at a dinner party the next Thursday, his wife observed that he did not eat as much as usual, that his countenance was pale, and that he frequently made pressure over his abdomen. Starting home, he was seized with a severe chill, and told his wife that he would leave her and run home; on getting there, a physician was sent for. The physician found him shaking with a severe chill, with pallor of the countenance, a frequent, small, weak pulse, and some tenderness over the abdomen. He was cupped and blistered over the tender part, but it was observed that his pulse became frequent and feeble in proportion to the quantity of blood taken. A dose of calomel and Dover's powder was ordered to be taken at bed-time, to be followed by oil in the morning. The physician not supposing the case to be serious, did but little more. The following Tuesday the patient died.

Post mortem appearances.—The abdominal cavity seemed to be a mass of lymph. The intestines were bound together by continuous bands of recently effused lymph, and the peritoneum lining the abdominal wall was literally covered with the same. All the other organs were healthy.

Professor Parker's Clinic, Monday, April 26th.—Case I.—The first case presented was one of common varus, occurring in a healthy child, about three months old. I mention this to bring up another malformation in the same child: It had no penis, externally, though the rudiments of the organ could be felt under the skin and pushed out to some extent. The tes-

tes were perfect and well developed. Prof. P. remarked, that he had never before seen such a case. The mother attributed the malformation to a fright from a bull during the third month of gestation.

Case II.—*Enlargement of the cervical lymphatic ganglia.*—Suppuration had taken place, giving rise to a swelling in the cervical region. Has pain in the head and knees, and his urine deposits a copious sediment. The swelling was laid freely open and ordered to be dressed with lint and cataplasm.

Case III.—A man aged 30 years, of intemperate habits and strumous diathesis, next came up, complaining of two sores on his sternum. On examination, it was found that, in addition to the sores, there was necrosis of the upper end of the sternum, and perhaps also of the clavicle. He had labored under the venereal disease several times, and this may have been the exciting cause of the disease of the bones. In the right lung tubercles had been deposited, producing feebleness of respiration on that side, and in the left lung puerile respiration and bronchophony were heard. In addition to all this, there was curvature of the spine to the right and left sides.

Prognosis.—Of course this is unfavorable, for the patient is scrofulous, intemperate, has had venereal disease several times, and, most probably, has taken mercury.

Treatment.—But little can be done. Good diet, warm bath and friction.

Case IV.—*Periostosis, or chronic inflammation of the lower end of the tibia and fibula, not invading the joint.*—The subject of this case is of a scrofulous diathesis. The joint admits of but little motion, but gives no roughness when moved. Apprehensive that the joint will become involved and amputation have to be resorted to.

Treatment.—Good diet and good air. Locally, wash and dress with salt water poultice.

Case V.—*Burrowing ulcer, of four years' standing, under the fascia of the forearm.*—Has been treated various ways.

Treatment.—Lay freely open, stuff with lint, and when inflammation occurs, apply a poultice.

Case VI.—A young lady presented herself with inability to flex and extend the forearm, save to a limited extent. She stated that, two or three years since, her hand was squeezed by a young man, and that the pressure at the time gave her some uneasiness; that ten months ago she was bled, and that in two or three days after pretty severe inflammation occurred in the arm. Prof. P. remarked, that the squeeze could not be referred to as the cause of this adhesion between the muscles; that the bleeding did not cause it, for the inflammatory symptoms did not occur for three days after the operation, whereas if a nerve had been pricked, the symptoms would have followed immediately. The girl stated that she had gradually been regaining the use of her arm; and the professor remarked that the *tinctura temporis* was the remedy in such cases.

Nevis materni, or erectile tumor.—The tumor was in a child three months of age, and was situated on the forehead. The mother said she did not observe it until some time after its birth, but its nidus must have been there. The tumor varies in color and temperature as it happens to be composed in chief part of arteries or veins.

The true mode is to take such tumors in time. The methods of treatment are, the hot needles, the thread, ligation, etc. The hot needles or the actual cautery are the best. In this case the hot needles were used.

Varicose vein of the left lower extremity.—Treatment is either palliative or radical. As the patient will not now submit to an operation, the shower bath and roller were ordered. Prof. P.'s radical treatment is to pass a needle under the vein, cut down to it, and pass the twisted suture over it.

A tailor, 26 years old, of regular habits, presented himself, complaining of a cough under which he had labored for a long time; but he said it had not annoyed him until six weeks since; says he raises much when he coughs; is nervous, and has palpitations, night sweats, and is losing flesh daily. Most of his relations have died of disease of the lungs. The left side of the thorax is more depressed than the right, and, during inspiration, the right lung is observed to fill with air more completely than the left. These facts lead us to suspect the left lung. Percussion reveals less resonance in the left than in the right, though the right is somewhat dull. Auscultation gives us prolonged and bronchial respiration, as is the case when tubercles are not far advanced. Tubercles in both lungs plainly, but especially in the left. But little can be done in such a case.

Tertiary syphilis.—A young woman came up, complaining of pain in the limbs, commencing about sunset. Prof. Parker observed, that a great diagnostic mark between true and syphilitic rheumatism was found in the time when the pains occurred. In true rheumatism they begin in the evening, or after the patient has got warm in bed; while those of syphilitic rheumatism commence about four or five o'clock in the evening.

Dr. Fell, of this city, reports a number of cases of tetanus occurring in his practice, cured by strychnia. His plan is to commence with from one-twelfth to one-eighth of a grain of strychnia, and gradually increase it until slight twitchings of the muscles are produced.

A new plan of treating syphilis, as practised by Dr. Anderson, of Staten Island hospital, is under trial at Bellevue. It is this: Large doses of some of the preparations of mercury twice a day, worked off in the morning; say a scruple to half a drachm of calomel, night and morning, and worked off by some

laxative. This is said to be the quickest mode of cure, (curing some in a week,) and as effectual as any other.

I saw, two weeks ago, a case of amputation of the arm at the shoulder, in which the "letheon" was administered. The ether rendered the patient stupid, but he grunted and appeared to suffer much pain. Indeed, the ether has been frequently administered at this institution, and thus far with but little success.

A day or two since I heard a medical student extolling a quack in this city, who has gained a great reputation for the cure of *prolapsus uteri.* The student declared that he had seen cases cured by his method. And what, would you guess, is his potent remedy? No other than *a quart of hazlenuts* finely powdered, shells and all, boiled in a quart of milk down to a pint, of which the patient is to take a teaspoonful three times a day!

New York, May 1, 1847.

ART. III.—*A Case of Acute Amenorrhea—Pneumonia—Enlargement of the Liver.* By JOHN T. MARABLE, M.D., of Montgomery County, Tenn.

Miss P., 21 years of age, of a stout and plethoric habit, was attacked February 24th. Called to see her the same day at six o'clock in the evening, I found her laboring under the following symptoms: Weight and pain in the head and back, acute and constant pain in the region of the uterus, which was considerably aggravated by pressure over that region, short breathings, hot skin, full, hard and rapid pulse, at times delirium; cessation of the menstrual secretion.

She was bled until there was a decided impression made on the system; the blood presented a buff coat when coagulated. A cathartic composed of calomel and colocynth was given, and in about an hour and a half was followed by a pill composed of opium and tartarized antimony. In one hour from this time she became rational. She then informed me that

she had been washing in cold water the day before, a thing she seldom did while menstruating; the menses ceased in about nine hours after, and the above symptoms came on. I ordered her to use the hip bath at 96°, and apply a sinapism over the region of the uterus. It is proper to remark that up to the time of her exposure the catamenia had been regular.

25th. Medicine operated well; patient slept about four hours during the night; no pain in the head; a slight soreness in the back, and somewhat tender in the region of the uterus. I ordered her to take another cathartic composed of calomel and ipecac. in the evening, to reapply the sinapism to the region of the uterus, and use the hip bath at 96°.

26th. Medicine operated well; no pain in the head or back; did not complain from pressure over the region of the uterus; menstrual secretion returned; slept well, and felt like eating. Hip bath to be used at night.

The next morning I was called to see her, the weather having suddenly grown very cold, and found her presenting all the characteristics of pneumonia. About one o'clock in the night she was taken with a chill, headache, frequent pulse, stitch in the side, some cough, and a sense of tightness and oppression about the chest. Auscultation discovered crepitant rhonchus in the left lung; percussion revealed but little if any alteration from the healthy state. Her menstruation still continues. She was bled until she complained of being faint; a cathartic composed of calomel and opium was given her; a solution of tartarized antimony to be taken every hour through the day and night; sinapism over the region of the pain.

37th. Medicine operated well; some pain in the head and chest; cough more than yesterday; sputa of a transparent color. Pill of calomel and tartarized antimony; solution of tart. antim. of greater strength to be taken as before.

28th. Medicine operated well; patient slept about four hours during the night; some little pain in the head, none in the back; sputa of a yellow brickdust color; some pain in the side; considerable cough; dullness on percussion, bronchial respiration, resonant voice. The menstrual discharge still

continues. Solution of tart. antimony continued in increased strength; one grain doses of calomel to be taken every hour until her gums are slightly touched.

March 1st. Patient slept well through the night; no operation from her bowels; left side a little tender; no pain in the head or back; menstrual secretion continues; physical signs about the same as yesterday; cough not so severe; expectoration of a lighter color. Tart. antimony continued; one grain doses of calomel to be given every three hours during the day, provided her gums do not become tender; bowels to be opened with senna and manna.

2d. Patient slept well; bowels acted upon; no pain in the head or back; coughed but little during the night; sputa considerably lighter colored than yesterday; gums a little tender; menstrual secretion declining. Solution of tart. antimony to be taken every two hours.

3d. Patient rested well nearly all night; no pain in the head or back; no tenderness in the side; coughed very little; sputa nearly natural; menstrual discharge subsided.

4th. Patient better in every respect. Bowels to be kept open; solution of tart. antim. to be taken three times a day.

6th. Patient decidedly better. Bowels to be kept open; solution of tart. antimony to be taken three times a day for three or four days.

On the 25th of the month, as I was passing her house, she called me in and informed me that her stomach had been swelling for fifteen or twenty days. It had become difficult to wear her accustomed clothing. On examination, I found that her liver had from some cause become considerably enlarged. I put her upon protoiodide of mercury, under which she has been improving rapidly. I entertain no doubt, from present appearances, of her ultimate perfect recovery.

May 1, 1847.

REVIEWS.

ART. IV.—*A Practical Treatise on the Diseases of Children.* By D. FRANCIS CONDIE, M.D., Secretary of the College of Physicians; Member of the American Philosophical Society; Honorary Member of the Philadelphia Medical Society, etc. Second edition, revised and augmented. Philadelphia: Lea and Blanchard: 1847. 658 pages.

Our medical literature comprises a fair proportion of works devoted to the diseases of children. Dewees led the way in that department; he was followed by Eberle; then came the volume the title of which is given above; and a fourth treatise was added, two years since, by Dr. Stewart, of New York. When Dr. Condie's work first appeared, we presented to our readers an extended notice of many of its interesting chapters; and as the appearance of a new edition affords a fit occasion for renewing our notice, we propose now to give an analysis of several portions not embraced in our former article. It is but just to the author to state that, in preparing his new edition, much of his treatise has been rewritten, that many additions have been made to it, while every part has been subjected to a careful revision. It embraces the results of his long experience, and the fruits of much reading on the subject.

The first chapters of the work are devoted to the *hygienic management of children.* Temperature is shown to exercise a powerful influence upon the health of the young—cold to be a prolific source of disease at that tender age. After reciting many well known facts on this subject, the author proceeds—

"From the foregoing facts, it must be evident that to maintain a sufficient degree of warmth in the air of the apartments occupied by children, is indispensable not only to their comfort, but for the preservation of their health and lives. It will not do, however, for parents or nurses to judge of the temperature required for the wellbeing of an infant by their own sensations, for what may be sufficiently comfortable to them may be destructive to the latter; nor should they suppose that because no alarming symptoms supervene immediately after the exposure of children to cold, their constitution does not suffer: uneasiness, at first slight, is by a repetition of the cause almost invariably converted into serious disease. Thus inflammation of the throat, air passages or lungs, more or less severe, or a predisposition to incurable affections of these and and other parts, is in infants and young children often the result of exposure to a degree of cold from which dangerous consequences are least suspected to ensue.

"Infants and children of a feeble constitution, or in whom from any cause the powers of life have been depressed, should especially be guarded from exposure to the external air during cold or damp weather. Important as the enjoyment of the fresh air is to the health and comfort of infants, the practice of carrying them abroad in cold weather, under the idea of confirming their strength, or rendering them hardy, is not less cruel than absurd. A child of sufficient age and vigor to enable its system to react promptly under the depressing influence of the cold, and by an increased evolution of heat to maintain its temperature, may, it is true, sustain with impunity or even derive advantage from exposure for a short period to a moderate degree of cold. But in all others, so far from an increase of strength and vigor, or the ability to endure without injury sudden vicissitudes of temperature, being acquired by their exposure to cold, either in or out of doors, the very opposite effect will ensue, if an attack of severe disease be not immediately produced.

"While urging the importance of a due degree of external heat to the health and comfort of infants, and the necessity of carefully protecting them from exposure to even slight degrees of cold, we would not wish to be understood as recommending that the air of the rooms they occupy should be kept at a high degree of temperature. To subject children of any age constantly to an overheated atmosphere is highly improper. From the excessive stimulation thus produced, and the profuse perspiration in which their bodies are almost constantly bathed, especially during sleep, they soon become relaxed

and enfeebled—their nervous system, at the same time, acquires an undue degree of irritability; every trifling vicissitude of temperature causes them to suffer, and they become liable to attacks of severe disease from the slightest causes.

A temperature of from 68° to 70° of Fahrenheit, is that best adapted to the nursery—a less degree of heat would not be prudent for very young children, and even those more advanced in age will scarcely tolerate, with perfect impunity, a much lower temperature. It is to be recollected that, notwithstanding a robust and healthy child, when a few years old, will suffer no injury from a dry and cold atmosphere, while engaged in active exercise—even out of doors—yet, when at rest, within doors, its health and comfort will be best promoted by the air of the room being sufficiently warm to prevent the least sense of chilliness.

The injurious consequences we have pointed out as resulting from constant exposure to too high a degree of artificial heat, will indicate the propriety of protecting children, as much as possible, from the intense heat which usually prevails during the summer months, especially in the cities of our southern and middle states, by a free ventilation of the apartments they occupy, and by frequent exposure to the fresh air, in open and shady situations. The deleterious effects of the heated and confined air of a large city upon the health of children may, in a great measure, be counteracted by these means, as well as by daily rides into the surrounding country, or by excursions upon the water; the means for which, in most of our larger cities, is placed within the reach of all, by the numerous steamboats that depart for short trips, at almost every hour.

It is a popular prejudice, that *dirt* is favorable to health—that children not the most cleanly are the most healthy; and we suspect there is some ground for the prejudice. It is healthy, active, spirited children who cannot easily be kept out of the dirt; they are dirty because they are healthy; not healthy because they are dirty. Dr. Condie insists upon cleanliness, and every physiologist will unite with him in the precepts he lays down on this point. A vigorous child may thrive in the midst of pollution, but how many delicate infants are stifled, in the first months of their existence, by bad air, and filthy apartments and foul clothing, no human calculation

can determine. We are no hydropathists; but we are free to avow that we are ardent advocates for water, warm and cold; we subscribe to all the following:

"During the entire period of infancy, the whole surface of the body should be washed in warm or tepid water every morning—and during the day, such portions of it as may become soiled by the natural evacuations or from any other cause. Nor should the maintenance of personal cleanliness, by similar means, be neglected after the child has passed beyond the term of infancy. The daily use of the bath, and more frequent ablutions of the face, hands and feet, should still be enjoined, and any neglect in regard to them prevented by a careful surveillance on the part of the parents or guardians. Frequent bathing in tepid water, indepently of its removing from the surface every source of impurity, benefits the health of the child by promoting the functions of the skin, and encouraging the free and regular circulation of the blood through its numerous vessels, securing thus the regular growth and full developement of every portion of the body.

"'I consider bathing,' remarks Struve, 'as the grand arcanum of supporting health, on which account, during infancy, it ought to be regarded as one of those sacred maternal duties, the performance of which should on no account be neglected for a single day.'

"The time during which the child should remain in the bath will vary according to its age. For the first month after birth the immersion should not continue longer than three or four minutes—the time being gradually prolonged as the child advances in age; continuance in the bath beyond ten or fifteen minutes is, however, unnecessary and scarcely prudent at any period of childhood. Children should not be permitted to enter the bath when in a state of profuse perspiration, nor for some hours after a meal.

"Intimately connected with the subject of cleanliness is a proper attention to the hair. In early infancy, all that is necessary is to subject the head, in common with every other part of the surface of the body, to daily ablutions in warm water; as the child increases in age, and the hair begins to grow, a little soap may be added to the water with which the head is washed, and the hair should be repeatedly but gently cleansed with a soft brush. This will prevent the greasy matter which exudes from the scalp accumulating and forming a dry black crust, disgusting in its appearance and liable to

occasion ulcerations of the skin beneath it of a most obstinate and painful character.

"Many parents are opposed to frequently washing the head of an infant, from a supposition that it will render it liable to take cold, and be otherwise prejudicial to health; no such fears, however, need be entertained; the child's health will be much more endangered by neglecting to keep its head scrupulously clean than by the too frequent application to it of water of a proper temperature. A soft brush should always be used instead of a comb; for cleansing and smoothing the hair of young children, there being less danger of the brush scratching or unduly irritating the skin."

The diet of the child is a matter of the last importance. If the mother can nurse it, her milk is not only the proper food for it, but its only suitable food. Children may be raised by hand, but to say nothing of the trouble of thus rearing them, nothing of the sickness thus induced, the mortality among infants where this system prevails, is enough to rebuke the folly and cruelty of mothers who send away their offspring to be nurtured by strangers. Dr. Condie might have multiplied his statistics on this head, but in the subjoined paragraph he has given enough:

"The difficulty of rearing an infant, when from any cause it is deprived of the maternal breast or that of a healthy nurse, is pointed out by almost every writer that has treated on the subject of infantile hygiene. In the asylums for foundlings and young infants, where feeding by the hand has been substituted for the natural nourishment, the mortality has been invariably the most appalling. Forty, fifty, sixty, and even as high as eighty and ninety per cent. of the infants being destroyed. (*Annales d'Hygiene*, t.xix.) It is true, as Auvity properly remarks, that in the domestic nursery, and where the utmost care and attention are bestowed at every moment upon a single infant, feeding by the hand is far less destructive to life. Under such circumstances, robust and healthy children have certainly been reared entirely without the breast. Still the task is a difficult one, and against the few instances in which it succeeds, we must place the very many in which it entirely fails. 'I am convinced,' says Dr. Merriman, 'that the attempt to bring up children by hand proves fatal in London to at least seven out of eight of these miserable sufferers;

and this happens whether the child has never taken the breast, or having been suckled for three or four weeks only, is then weaned. In the country, the mortality among dry-nursed children is not quite so great as in London, but it is abundantly greater than is generally imagined.' When, therefore, from any cause—and the case is one of very rare occurrence—a mother is unable to suckle her infant, the breast of a proper nurse should be substituted.

"The danger which attends every attempt to rear an infant by the hand, as it is termed, is indeed now very generally recognised by mothers; the importance, however, of confining it entirely to the breast during the first months subsequent to birth, is still far from being understood. It is too often the case that an infant is forced to partake daily of substances to the digestion of which the powers of its stomach are totally inadequate, or which are altogether unadapted to afford to it wholesome nutriment, under the absurd notion that some other food, in addition to the mother's milk, is necessary to support its strength and promote its growth. The beneficial effects of the natural food are in this manner, in a great measure, counteracted, while the infant is subjected to many of the dangers resulting from dry-nursing; the functions of its digestive organs become almost invariably deranged; it suffers more or less from flatulence, griping pains, and irregularity of the bowels, and becomes weak and emaciated, even if distressing spasms of the glottis, general convulsions, or still more serious disease be not induced."

If from any cause it be absolutely necessary to feed the child, nothing is so good a substitute for the mother's breast as the milk of the cow. This is apt to become sour when kept long, especially in warm weather, and in that state disagrees with the child. We have found a great advantage in boiling the milk, by which its albumen is coagulated, and thus its tendency to ferment diminished. The effect of boiling cider in keeping it sweet is well known. At the boiling point the *ferment* in the juice of the apple is coagulated, and the saccharine principle afterwards undergoes no change. The same holds, in some degree, with milk, and the fact is one of not a little value where this article must be kept for children through a hot summer's night. The practice of adding flour to the milk, making what is called thickened milk, is bad, giv-

ing rise to acidity of the stomach and indigestion. Milk contains every element of nutrition, and all additions, unless it be a little sugar, impair its value for infants.

Our author fixes the period for weaning at a year; we are not able, however, to perceive the force of his reasons for it. He speaks of the milk as being less nutritious at the end of the year; but he does not cite the authority upon which this assertion is made. We doubt its correctness. We question whether the milk is less abundant in nutritive qualities at this advanced stage of lactation than in the first months; but even if this be true, before this time, generally, the child has learned to add many things to its bill of fare. We give the words of the author:

"The proper period for the infant to be taken from the breast, or weaned, and nourished altogether independent of the mother's milk, may be stated as a general rule to be at the termination of a year; within which period, however, the occasional use of other food may with propriety be allowed, according to the directions already given.

"At the termination of the twelfth month, the cutting of the first set of teeth is in general considerably advanced, and the digestive organs of the child are in a condition to effect promptly the solution of almost every species of plain and wholesome food; hence the propriety of depriving it entirely of the breast at this period. But when, as is occasionally the case, the process of dentition is more rapid, and the infant is at the same time healthy and vigorous, it may be weaned at any period after the tenth month; while on the other hand, when dentition is more tardy, or the infant is weak and sickly, it may be prudent, if the mother have a sufficient supply of milk, to continue it at the breast somewhat longer than a year. We are to recollect that while the health of an infant is very generally impaired by its being too early weaned, on the other hand, by confining it too long to the breast, it may likewise be seriously injured, as well from a diminution in the nutritive properties of the mother's milk, as by this being no longer adapted to the condition of the digestive organs of the infant—the functions of which have become more developed—nor to the perfect nutrition of the several organs of the body.

"In deciding upon the proper period for weaning, the season of the year should be taken into consideration. In many

parts of the United States, especially in the larger cities, this is indispensable to the safety of the infant. When deprived of the breast at the commencement of or during the summer months, its liability to a disordered state of the bowels, or to a severe attack of cholera infantum, is invariably much increased. Hence the spring or autum should if possible be invariably made choice of for the period of weaning; and only under circumstances of the most imperious necessity should it ever be attempted during the season of greatest heat, unless the stomach of the infant has already become fully accustomed to other species of food, and the functions of the digestive organs are performed with perfect ease and regularity. In almost every instance, therefore, when upon the approach of summer, a mother ascertains that, from any cause, she will be unable to suckle her infant until cool weather again returns, it will be more judicious to wean it somewhat earlier than under other circumstances would be desirable; so that its stomach may become accustomed to the new kind of food which is to take the place of the mother's milk, before the intense and continued heat of the weather shall have augmented the irritability of the entire alimentary canal, and rendered this liable to disease upon a change of diet. When, however, nothing occurs to prohibit it, the infant's safety from disease will more certainly be secured, if the period of weaning be postponed until after the heat of summer is over."

We are glad to find that Dr. Condie allows children to indulge in fruit—that greatest of luxuries at that time of life. It is a most groundless and cruel prejudice which would deprive them of so high a gratification. An appetite so universal, so strong, so natural, cannot mislead; let the fruit be ripe and the child in good health, and no mischief can result from its indulgence. We go farther than Dr. C., and would allow the urchins to eat strawberries, and especially blackberries, *ad libitum.* Notwithstanding their "small, hard, insoluble seeds," we insist that they are the fruits which children can eat with the greatest impunity. The pious Dr. Butler was in the habit of saying, that "doubtless God could have made a better berry than the strawberry, but doubtless God never did;" and we agree with the learned divine. The strawberry comes first in the spring, and it were cruel to deprive the little innocents of

their share of such a luxury. But the blackberry—it is a proverb of healthfulness. Who was ever known to be hurt by eating blackberries? The following are the remarks of our author respecting fruits:

"Much difference of opinion exists as to the propriety of allowing children to partake of fresh fruits; by many they are entirely interdicted, while by others their allowance is qualified by numerous restrictions, not very easy, under ordinary circumstances, to be observed. By a healhty child, nearly all the saccharine fruits, when perfectly ripe and mellow, may be eaten in moderation with perfect safety; they furnish a very grateful and proper addition to their ordinary food. It must be recollected, however, that the wholesomeness of fruit is always in proportion to its pulpness and to its saccharine and mucilaginous qualities. Unripe fruit of every species is decidedly injurious, as well on account of its being almost entirely indigestible, as from the injury inflicted upon the stomach by the crude acid juices it contains. All fruits that are invested with a firm cuticle or skin, are also improper for children; but the ripe pulp of those fruits, as in the case of grapes, where it can be entirely freed from the skin and seeds, is in general sufficiently wholesome and nutritive. Fruit containing an abundance of small, hard and insoluble seeds, as strawberries, blackberries, whortleberries, currants, and the like, should be eaten by children only in very moderate quantities, as the seeds are liable to be retained in the alimentary canal, and may excite considerable irritation of its lining membrane.

"Cherries are among the most pernicious fruits in common use, and ought to be wholly excluded from the list of articles with which children may be occasionally indulged. Even when eaten without the stones, they are peculiarly apt to derange the bowels; and when swallowed with the stones, which with children is not unfrequently the case, they are capable of producing violent and even fatal impressions on the alimentary tube. No small number of instances have come under my notice, Dr. Eberle remarks, where the most alarming, and, in a few cases, fatal consequences resulted from the irritation of cherry-stones lodged in the bowels. Convulsions, inflammation, unconquerable constipation, and exhausting and harassing diarrhœa, are among the affections which are apt to arise from this cause.

"Fruits stewed or roasted, with the addition of sugar, are

always very acceptable to children, and when tolerably ripe and not too sour, in general agree well with their digestive organs. The same remark will apply to fruits preserved in sugar; when eaten in moderation, with milk or bread, they form an innocent, and, in the case of the habitually costive, an advantageous addition to their meals. They are improper only when the bowels are peculiarly irritable and liable to be disordered from slight causes, when taken in immoderate quantities, or upon a loaded stomach. Dried fruits, when deprived of their skins, and stewed with the addition of sugar, seldom produce any injury to the stomach of a child; but when uncooked, and eaten with their skins, they are difficult of digestion, and disorder, often to a very considerable extent, the digestive organs. We have in repeated instances seen attacks of violent vomiting and purging, distressing colic, and even convulsions of a very dangerous character, produced from the use of this kind of fruit, notwithstanding the amount taken has not been in the least degree immoderate."

The subject of exercise is one of so much importance that we make long extracts from our author on this head. Left to themselves, children are sure to take exercise enough after they begin to run about, but how to manage them in helpless infancy is a point upon which Dr. C. gives the following useful instructions:

"For the first few weeks of its existence, the infant requires but little exercise of any kind; and it is not until some months have elapsed, that its organization has acquired a sufficient degree of firmness to permit of its enjoying any other than such as is of the most gentle, passive kind. From an early period, however, gentle friction with the hand over the whole surface of the body, carrying it about in a horizontal or slightly reclined position on the nurse's arms, either within doors, or, when the weather will permit, in the open air, will not only communicate a pleasurable sensation to the infant, but by promoting a free and equal circulation of the blood, contribute to the full and regular development of every part of its body. But while this amount of exercise is decidedly beneficial, and should not be neglected, we are to recollect that every species of dandling and tossing—every kind of motion, in fact, excepting of the gentlest kind, is liable to produce present discomfort, if not permanent injury.

"For the first month or two, the infant should be handled as little as possible, and never placed in an erect or sitting posture. To set it upon the lap while its bones are soft and pliable, its joints slight and imperfectly developed, and its muscles small and feeble, and to jolt it thus by the hour—its poor little head moving about as if palsied, and its tender back bending and twisting from side to side—is the very worst plan that can be adopted to minister to its comfort, or to promote its regular and symmetrical growth.

"Many nurses would appear to think that the greater the amount of motion to which an infant is subjected the better. They toss and roll it about as if it were a bundle of rags, and pull and twist its limbs till the joints crack. Under such treatment, it is not to be wondered at that the poor child moans, cries, or screams, during the whole time occupied in dressing it, or that it should suffer from deformities and other injuries.

"Another barbarous practice is that of tossing an infant up and down in the arms, held at full length from the body. The motion thus communicated is of too violent a kind to be borne with impunity by the tender frame of a young infant, to say nothing of the serious accidents which may result from the practice, even when the utmost care is observed.

"Until an infant is able to sit alone, it may be allowed to amuse itself upon its cot, or on a soft cushion spread upon the floor; here it will lie for hours, until it acquires strength to roll about, and is much more contented, and thrives far better, than when continually nursed in the arms or upon the lap; the danger of deformity is likewise avoided, and the child acquires at a more early period the power to raise itself and sit upright without assistance; and at nine or ten months will, in general, be able to get upon its feet and walk.

"When sufficiently old to be attracted by surrounding objects, carrying it frequently into the open air, especially in the country, during the mildest seasons of the year, has a highly beneficial tendency. The freshness, beauty and variety of the scenes of nature are highly attractive, even at a very early period of life; and independently of the healthy influence of a pure and unconfined atmosphere, the impressions thus resulting are always of a decidedly salutary kind.

In carrying an infant, some important precautions are necessary. The spine, being soft and yielding, is incapable of supporting the weight of the head and other parts of the body which rest upon it in the erect posture. To prevent deformity, therefore, an infant should not be held seated upon the

arm of its nurse or attendant; it ought always to be carried in an inclined position, so that the head, and every part which bears upon the spine, may receive an equal and adequate support. Neither should the child be carried for too long a time in the nurse's arms without changing the position in which it is held; otherwise there is danger of its becoming permanently deformed, from its body being twisted to one or the other side. To obviate this, the child should be carried alternately on both arms. Even in suckling an infant, it is important that it be not confined exclusively to one breast, but nourished alternately from both, as well to prevent its contracting a crookedness of form, as to guard against its acquiring a habit of squinting, from one of its eyes, while nursing, being constantly directed towards one point.

"Infants in general derive much pleasure from riding in a little carriage drawn by the hand; and as it affords a convenient means of conveying them frequently, when the weather is mild and otherwise favorable, to one of the public squares or parks which exist in most of our larger cities, or even to a garden or field without the town, where they may enjoy a free and fresh air, this species of exercise may be occasionally substituted for carrying in the arms—to which, for outdoor excursions, it is, for very young infants, in many points of view preferable.

"The body of the carriage should be long enough to permit the infant to lie down at full length, and the sides ought to be sufficiently high to prevent it falling or rolling out. The wheels should be low, in order to lessen the liability of oversetting, and they should be carefully secured against running off when the carriage is in motion. Very young infants should be laid down in the carriage on a pillow or soft mattress, with the head slightly elevated, and so confined at the sides as to prevent them from rolling when in motion. After the child has acquired some degree of strength, it should be placed in a semirecumbent posture, with its head and back well supported by pillows, etc.; and when it is capable of supporting its head, it may be permitted to sit upright, and properly secured against being thrown from side to side by the rolling of the carriage.

"The carriage should be drawn by none but a prudent and trusty person, with a moderate and steady motion, and never over rough or uneven ground; when the motion is too rapid, or uneven and jolting, much injury may be inflicted on the infant.

"Children, when placed in the carriage, should never be kept standing in the sun, if it be warm; nor should they be

kept motionless when the weather is cool. In cold weather, they should be amply covered, since from the passiveness of their situation, they will require additional clothing. Nor should the ride ever exceed half an hour at a time, especially if the child is observed to become sleepy; it being hazardous to allow children to sleep in the open air; and after a few trials, the exercise almost invariably will predispose them to sleep, and thus destroy the benefit of the exercise, as well as interfere with their regular habits of repose.—(*Dewees.*)

"It is only towards the end of the ninth or tenth month, and, when the child is feeble, even much later, that it is proper to teach it the use of its feet. It is perhaps always better that before an infant attempts to walk, it should first learn to crawl. With this intention, it should be placed upon a soft carpet, where it soon busily employs itself, moves and extends its limbs, or rolls about to reach its playthings. The instinctive desire for locomotion, and the various things that attract it in different parts of the room, will soon induce it to crawl upon its hands and feet. This it should be allowed and even encouraged to do; as children who are permitted this 'useful intermediate muscular discipline,' are sure to acquire a much firmer step, and enjoy more robust health, than those who have been taught to walk without it.

"In no instance should any particular attempt be made to induce children to use their feet at an early period, nor until the bones have acquired a sufficient degree of solidity to sustain the body, without the danger of their becoming bent by its weight.

"In teaching a child to walk, it should be left pretty much to its own efforts; all artificial support is injurious. As generally applied, such support has a tendency to produce an unnatural elevation of the shoulders, while the infant, depending upon it almost alone for maintaining the upright position of its body, is accustomed to bend too much forward or to one side. By this may be laid the foundation of a permanent deformity, or at least of an ungraceful gait, which it is impossible in after life to correct.

"While in the nursery, infants may be taught to rise from the floor by laying hold of chairs; and if occasionally supported under the arms, they will easily learn to stand erect; but they should never be raised up by one arm only. At an early age they may be held under both arms; and when thus supported, if the hands of the attendant be occasionally withdrawn for a moment, they will soon acquire the power of standing alone. Mild and persuasive language ought to be

used in these experiments; while the infant may be encouraged by some toys placed at a little distance, which will induce it to stretch out its little arms, and endeavor to advance towards the place containing the desired objects. By such means it may be allured to visit different parts of the room. The first journey of this kind ought to be attempted only from one neighboring chair to another; afterwards the little traveler may run towards its mother or nurse, who with extended arms stoops to receive it. As the infant improves in its efforts to walk alone, the chairs may be placed at a greater distance from each other, until finally it walks firmly in every direction, without assistance of any kind.—(*Struve.*)"

We have examined only a few of the introductory chapters of this work, but it is not our intention to extend our notice to the main body of it, in which the diseases of infancy and childhood are discussed. For this we must refer the reader to the work itself, and in doing so we feel assured that we are referring to one of the richest sources of instruction on the subject in our language. Taken as a whole, in our judgment, Dr. Condie's treatise is the one from the perusal of which the practitioner in this country will rise with the greatest satisfaction. Defects, doubtless he will discover, but they will appear small in comparison with the learning and sound judgment displayed on all its pages.

ART. V.—*Transactions of the Medical Society of the State of New York.* Vol. VII. Part I. 1847.

The first paper in this volume is an address, by Dr. John McCall, on "Mental Manifestation." The brain is shown to be the organ through which the mind manifests itself, and the health or disease, the good or defective organization of which determines the soundness and vigor of the mind's action. A fact illustrative of this now universally received idea, the author gives as occurring under his own observation:

"While surgeon in the United States army, during the last war with England, I had an opportunity of witnessing the effects of compression by my hand on the brain of a soldier,

whose skull had been extensively fractured, and a portion thereof, as well as brain, cut away on the upper part of the left hemisphere, by an Indian with his tomahawk. The intellects were scarcely at all impaired; yet on compressing the brain with my fingers, loss of consciousness and insensibility supervened; on removing the pressure, perception and understanding of what was being done around him returned after a short time. Several such cases have been met with and detailed in medical and surgical works. A patient of mine lived two years without knowing the fact. He had been insane, and the last two years of his life were spent in a state of profound idiocy. This was called a disease purely of the mind, and many so regarded it, as the patient was fat and plethoric at the time of death. But on a careful post-mortem inspection of the brain, in the presence of Dr. Brigham and others, it was found extensively diseased. This pathological state accounted most satisfactorily to our minds for the failure of mental manifestations, as stated."

The second paper is by Dr. N. S. Davis, on "Some of the most common diseases of the digestive organs." Extracts from this article will be found in another part of this Journal.

"The Resources of the Medical Profession" is the title of the third article, by Dr. Joseph Bates. The writer gives some melancholy statistics showing the resources of quackery. For example—

"A certain writer remarks that 'Brandreth, with his pills, has risen from a poor man to be a man of extensive fortune. He has now at Sing Sing a three-story factory for grinding his medicines. Aloes are carried into it by the ton, and whole cargoes of the pills are despatched to every part of the Union and down everybody's throat. He has expended $35,000 in a single year for advertising.' He observes that 'Moffat, adding bitters to pills, has run up a fortune of nearly $300,000.' That 'Sherman, once a poor man, by the sale of his lozenges has come to be a buyer of lots and houses by the wholesale.' And that 'Swaim, of Philadelphia, by pouring his panacea into people's stomach, can afford a single pearl head-band for his daughter, worth $20,000.' The writer closes with this remark: 'Your literary man will starve in his garret, while your pillmaker will emerge from his garret into a palace.' A careful investigation of the success of quackery and the en-

couragement it receives from all classes would lead one to conclude that it must ultimately obtain a conquest, and triumph gloriously over all the resources that the science of medicine can afford to the sufferings of life. We see quackery bolstered up and fostered by the learned and unlearned, the honorable and dishonorable, judges, lawyers, clergymen, and editors of public prints. Here all grades of society meet on one common level, and are all equally duped."

He shows that even Mexico, benighted as she is in many respects, in this is ahead of us:

"Mexico, in her legislation to protect her citizens from the ravages of quackery, is in every particular worthy of imitation. Her 'physicians must be graduated doctors of medicine,' but before they are permitted to practise they must pass a rigid examination. Her apothecaries also by law are subjected to a similar examination. In her legislation she has done all in her power to protect, not her physicians, but her whole commmunity, from the fatal effects of quackery."

The fourth is a paper by Dr. A. H. Stevens on the "diagnosis of nervous diseases." He gives the following case, the like of which must have occurred in the practice of most physicians:

"During the prevalence of spinal irritation, I was asked to see a lady recently from England, by way of Jamaica, whither she had been sent for a supposed consumption, with spinal irritation at the same time. She had been confined to the bed with few exceptions more than two years. Perceiving after a few visits that lively conversation made her forget her ailments, and that the general assemblage of symptoms did not belong to any nosological disease, I obtained from her married sister some matters of private history that led me to be quite sure her case was purely nervous. "My dear doctor, do you know any thing that would cure my poor sister?" "Yes, I do—I think I know—I am sure of it." "What, pray tell me what." "That cat-o'nine-tails hanging over your fireplace!" I will not detain you to describe the scene which followed. About six weeks afterwards I was stopped in Broadway by two highly dressed ladies, one of whom tapped me on the shoulder and introduced my patient to me, saying with a smile in which the latter joined, "that last prescription cured my sister."

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

Gun Cotton in Blasting. — We take the following from a London paper, for which we are indebted to our Paris correspondent:

A series of trial experiments to test the strength of gun-cotton in blasting, as compared with the known powers of gunpowder, took place on Wednesday, in the Standedge tunnel, on the Huddersfield and Manchester Railway. A correspondent thus describes the proceedings and their results. The place selected for the experiments is in the midst of the great Yorkshire chain of hills, between Huddersfield and Manchester, where a tunnel is now constructing through huge masses of Millstone grit, and which, when completed, will be the longest tunnel in England. The rocks, which are situate at the depth of one hundred and fifty-five yards below the surface of the mountain, consist entirely of close grained quartz, of which some idea may be formed by the fact that in one hundred and ten yards of the tunnel now completed, not one fissure or joint is perceptible. Holes were drilled of 2 inches, 1⅛ inch, and 1¼ inch in diameter in the millstone grit, and the charges of gun-cotton varied from 1-6th to 1-3rd of the weight of powder ordinarily made use of in blasting. Cartridges containing the gun-cotton were dropped into the holes with the patent fuse attached, and the quantities varied from 10 ounces in the larger, to 6 ounces in the smaller tubes; the quantity of gunpowder employed for similar blast-drills, varying from 1 to 3 lbs. The shots in the tunnel were 12 in number, 10 being charged with gun-cotton, and No. 4 and 11 with gunpowder. The shots numbered 2 and 7 in the south head-

ing and 12 in the north heading, were declared by Mr. Nicholson, the contractor, previous to their being fired, to be those on which the test of the strength of gun-cotton, compared with that of gunpowder, would be most certain, both as to charges and position. No. 2 was charged with 10 ounces of gun-cotton, and did wonderful execution, exceeding in everything the expectations of both the engineers and miners. No. 7 was charged with 1¼ ounce of gun-cotton, and performed the same work as 6 ounces of powder. The crowning experiments were No. 11 and 12 in the north heading. No. 12 was charged with 16 ounces gun-cotton against 3lb. 4oz. of gunpowder in No. 11, the shots exceeding anything the engineers or miners had before tested. The gun-cotton exploded first, and threw against the side of the heading, and broke into nine pieces, 220 cubic feet of rock, or about 15 tons weight. This shot, from its connection with No. 11, was supposed to have assisted it materially. No. 11 removed, to the distance of about one yard, 224 feet of rock, or about 16½ tons weight, but was broken into six pieces only. Thus showing the strength of one over the other. The following properties were established in these experiments: That the gun-cotton may be considered of three or four times the strength of gunpowder; that it is entirely free from smoke, a qualification of great importance in mining operations, as the miners can recommence work immediately after the blasts have been fired, which is not the case with gunpowder; that in keeping the cotton on the works, and its being handled by the men, there is not so much risk from explosion or loss from waste as with gunpowder; and, from the decreased size of the charge, the depth of the drill-hole may be diminished, and the power more concentrated: it also possesses all the qualities of the best gunpowder, and may be kept under water instead of in a magazine; it does not heat by keeping, and will explode at not less than 350.

Structure of the Sea Serpent.—At the last converzatione of the Warren Club, an association of literary and scientific gentlemen of this city, Prof. Agassiz gave his views of the probable external structure of the far-famed sea serpent. whose visits on our coast are placed beyond doubt by a chain of concurrent testimony strong enough to establish any fact. It is the opinion of this eminent naturalist, that the extraordinary reptile so often described by seafaring people and others,

is intermediate in structure and organization between the ichthyosaurus and plesiosaurus, monsters that lived at an extremely remote and undefined geological period in the history of our earth. He supposes that this marine nondescript must have paddles, like those ancient fish lizards, but is uncertain in regard to the mode of respiration, whether it is effected bv lungs or gills. That point has not yet been determined in his mind in regard to the plesiosaurus, and he has lately written to Mr. Owen on the subject. It was the unqualified opinion of Cuvier, however, that the plesiosaurus not only breathed air, but that it also had very capacious lungs. From the circumstance that the ribs bear a striking resemblance to those of the chamelion, the great French naturalist suggested that the animal might have been a kind of marine chamelion, having the power of changing its color, and thus eluding the pursuit of its rapacious and formidable enemies. Such a property would be in accordance with the general law of compensation,—its jaws being both small and weak, and it had neither claws nor a long tail for defence; but the great serpent is supposed to have both the first and last of those organs to perfection. Whenever the sea serpent is taken, a feat which we trust will ultimately be accomplished, it would be curious if an anatomical examination should prove that Prof. Agassiz actually predicted the true plan of its construction. This same gentleman re-constructed, on paper, a fish of the primeval world, without having any other part of the animal than a single, solitary scale. When, at length, the fish was found, his drawing corresponded precisely with nature's own work. Such is the accuracy of modern science.—*Boston Med. and Surg. Journal.*

Plagiarism.—A volume "*On Tumours of the Uterus and its Appendages*, by Thomas S. Lee," which received the Jacksonian prize, has very recently (1847) been published in London. If any one will look over its pages, and particularly over table No. 11, and the déductions drawn from it, commencing on page 183, and compare it with a similar synopsis, published in the *Amer. Med. Journ.*, for April, 1845, page 330, he will there find a table of the *same* kind, having the *same* arrangement, *similar* headings, and even the *same language*, with full references, by Dr. W. L. Atlee, of this city; yet we cannot discover that Mr. Lee has made any acknowledgment to Dr. Atlee. On the contrary, he assumes the authorship in these

words, page 183: "*I have carefully collected into a tabular form all the known operations for the extraction of the ovary!*" We happen to know that the construction of this table cost Dr. Atlee much time, trouble, and labor. His careful synopsis of the leading features of each case, with the references to authorities, was peculiarly valuable to the profession in the consideration of this important question. It is evident, on the pages of Mr. Lee's work, that he has availed himself extensively of this aid, and we regret that he did not think it best to award justice to whom it is strictly due. It would appear from the foot notes, p. 270, that Dr. Atlee's table was before him. The *only original* matter furnished by Mr. Lee is the *addition* of *some* cases occurring since the publication of Dr. Atlee's table, and arranged under the *same* heads. He has failed, however, in noting *all.* So entirely has he depended upon Dr. Atlee's table, that he has not even added four *recent* cases, occurring in *his own country*, and *noticed* in the journals before his work went to press.—*Medical News.*

Vapor of Ether in Asthma and Hoopingcough.—Dr. Willis makes the following observations on the subject in the *Medical Gazette:*

"Ether, given by the mouth, has long been familiarly employed in the treatment of asthma. I have for many years been aware of the fact that it is vastly more efficacious administered directly in vapor by the breath. My plan of using it is extremely simple. I have had recourse to no kind of apparatus for this purpose, but have been content to pour two, three, or four drachms of the fluid upon a clean handkerchief, and to direct this to be held closely to the mouth and nostrils; a single short and difficult inspiration is hardly made before the effect is experienced; and I have occasionally seen the paroxysm ended in six or eight minutes, the respiration having in that brief interval become almost natural.

"It is not otherwise with hooping-cough; the paroxysms of coughing are positively cut short by having the ether and the handkerchief in readiness, and using them when the fit is perceived to be coming on. So effectual have I seen their immediate application, that I have even found it necessary to suffer the patient to have an occasional fit of coughing to its natural termination, with a view of clearing the chest from accumulated mucus."—*Ib.*

Advance of Asiatic Cholera.—Great Mortality in Mecca.—By intelligence received from Alexandria, dated January 19th, we learn that the Asiatic cholera has reappeared in the Hedjas, extending as far as Aden, and that within the space of a few days, more than fifteen thousand persons have been cut off by this terrible disease, in Mecca and its environs. It had, however, somewhat diminished in intensity, and was extending southwards. On the receipt of this intelligence great alarm was excited in Egypt, and a rumor soon spread that the disease had reached Suez and even Cairo. This report, however, was unfounded. The cholera had not reached Djedda on the 28th December. A sanatary cordon was about to be placed at a few leagues distance from Suez, so that no pilgrims would be allowed to enter Egypt from that quarter.—*Ib.*

The Cholera in the Russian Sanatary Cordon.—It is announced in the latest intelligence from Armenia, that the cholera has broken out in the sanatary cordon of Russian troops stationed on the borders of the Caspian Sea. Hence it has passed in a northwesterly direction to the Tartar districts of Solgan and Leokeran. Many of the Cossacks on the frontiers of Persia had perished. The whole of the western coast of the Caspian Sea, from Baku to Astrachan, is in a very unhealthy condition. The disease was still prevailing at Asterabad, Reschid, Ispahan, and Tiflis. All the inhabitants, who were able, have deserted the last mentioned town. Gastric affections were observed to be the forerunners of cholera, and those who were left in a weak state by these diseases, generally fell victims.—*Ib.*

A Few Observations on some of the most common Diseases of the Digestive Organs: By N. S. Davis, M. D., *Binghamton*, 1847.—Perhaps there is no class of diseases more frequently neglected or badly managed, than those which occur most frequently, and at the same time are not attended with any immediate danger to life. Of this class, are those chronic and annoying affections usually included under the head of Dyspepsia. And their very frequency is the cause of their being so often misunderstood, or carelessly treated. For it is a general rule, that whatever is most common, is least apt to excite in the mind either careful attention or close thought.

Chronic diseases of the digestive organs may be divided into two great classes. The symptoms presented by both are exceedingly various. They may be described in general terms, however, as follows:—The first, in its early stage, is characterized by a simple loss of action in the muscular coat of the stomach and intestines, causing the bowels to be costive; the head often dizzy or painful; not unfrequently paroxysms of what is popularly termed sick-headache; simple irritability of the nervous system; a general sense of lassitude or indisposition to active exertion, either mental or physical; and a speedy sense of weariness on attempting such exertion. The patient often says he does not feel well, or able to labor, but he can scarcely tell why; for in the early stages the appetite often remains good, sometimes morbidly so; the tongue moist, and only slightly furred; and the pulse natural. But, at a later period, indigestion is more prominent, giving rise to more or less distress of some kind in the epigastric region, soon after eating. Not unfrequently, however, (particularly in females,) the appetite is entirely lost.

The second class of patients are almost uniformly characterized by a clean red tongue, a quicker pulse, more acidity in the stomach, more painful digestion, particularly more sense of heat or burning in the stomach, more loss of flesh, and the costiveness often alternating with diarrhea. And here again the food is often habitually rejected almost as soon as it is swallowed.

The two classes of symptoms here described, exist in every grade of severity, and often run into each other, making a case of no little complexity. And not unfrequently, the first, after a protracted existence, or bad management, terminates in the second.

Let us now inquire what is the real *pathology* of these diseases.

There is no proposition more susceptible of proof, than that the whole nervous system, (and no part of it more so than that termed organic,) is dependent on due supply of oxygen in the arterial blood, for the healthy performance of its functions. Another universally admitted proposition is, that all muscular contraction is dependent on nervous stimulation or agency; and not only so, but all the capillary vesssels; and consequently the secretions are more or less under the influence of the same agency. And still another well established proposition is, that in the same proportion that the tone, or healthy energy of the nervous system is impaired, its irritability or susceptibility to impressions is increased. Keeping

these general propositions in view, let us return to the diseases in question. They are well known to occur most frequently in the female sex, and especially among the higher or more fashionable circles; next among men of sedentary habits, hard students, and such as have impaired the vigor of their organic systems by practising some of the vices of the age; and none more frequently than excessive venereal indulgence and onanism.

Now, why do dyspeptic complaints arise principally among these classes? Simply because the first, by the foolish fashion of confining the chest, and the second, by the want of exercise, fail to receive the necessary quantity of oxygen into the lungs; consequently, the nervous system is not duly supported by well oxygenated arterial blood; and hence its influence over the whole muscular system is impaired; and hence too the sense of lassitude or indisposition to active exertion in the cerebral or voluntary systems, and the loss of peristaltic motion, and consequent costiveness, occasioned by the diminished energy of the organic system.

But this is not all. The same state of the nervous system causes a diminution of all the secretions. The gastric juice is diminished in quantity, and the food is consequently slower and more difficult of digestion. Many of the excretions are also partially retained, vitiating the blood, and giving rise to the frequent attacks of sick-headache, and a great variety of other distressing symptoms. The third and fourth classes of men produce the same results, but in another way. The third err by concentrating the vital energy too much and too long on the cerebrum alone, thereby impairing the organic nervous system, and producing all the subsequent morbid phenomena already named; while the fourth and last produce the same consequences by a direct and excessive drain on the organic system itself.

I might here detail a number of well marked cases of this last class; but the practice of every close observer will furnish him abundance of illustrations, and therefore it is unnecessary. It will be observed that all these causes produce only the first class of causes described above. And hence the inquiry will arise, from whence comes the second class? Every intelligent physician will quickly recognize in the second, simply a more or less severe inflammation of the inner coats of the stomach; and consequently it may arise from any of the ordinary causes of inflammation. But I venture the assertion that nine cases out of every ten arise from either neglect or mal-treatment of the first class. Nothing is more

common than to find individuals, when they first begin to suffer some of the earliest symptoms I have named, resorting to some of the thousand kinds of patent pills with which the country is filled; and dose after dose is taken, each, by temporarily unlocking the secretions, affording an evanescent and deceptive relief—just sufficient to keep up the patient's perseverance in their use—until (I speak within bounds when I say it,) *tons* of pills are annually consumed in our country, for this very purpose. Not only so, but scores of physicians, and some too of high standing, do the same thing, with different means. Let a patient of this kind call on one of these physicians, and they are promptly told that they are *bilious*, (a term used to cover more ignorance than any other in the whole medical nomenclature,) and given an emetic, a dose of calomel, or a box of blue pills, and sent home. The patient takes it, experiences the same temporary relief as in the other case; praises the doctor's prescription, and in a week or fortnight returns for another.

Now the difficulty with this treatment is, that the remedies have not the remotest influence over either the remote or proximate causes of the morbid condition of the patient. On the contrary, the temporary stimulus of the remedy on the nervous fibrils distributed on the inner coats of the stomach and intestines, causes a temporary flow of the secretions, and consequently a short season of relief. But every repetition of this direct stimulation of these nervous fibrils, increases their irritability, until in due course of time we get the smooth red tongue, the frequent vomiting, and occasional diarrhea: in a word, all the symptoms of confirmed chronic inflammation of the villous or mucus coat of the digestive canal, or the worst form of dyspepsia. The patient now soon gets tired of his *regular* doctor, and commences the interminable round of quackery.

I had here intended to illustrate the foregoing views, by a detail of several cases from my note-book; but the lateness of the hour when I commenced this communication rendered it impracticable. And it is the less to be regretted, as such cases are within the observation of us all. Neither is it my intention to go into any details of treatment; for if our pathology is correct, the appropriate treatment will readily suggest itself to every intelligent mind. Obviously the first thing to be done is, to remove the remote and exciting causes. This is a *sine qua non*, without which no *permanent* relief can be secured. The patient must have a sufficient quantity of pure air, and well oxygenated blood; due physical exercise; a plain,

simple diet; mental relaxation; and a removal of all undue drains on the organic system of nerves, &c.

The direct therapeutic agents employed must be so combined, that while they soothe the irritability and sustain the strength of the whole nervous system, they shall gently promote all the secretions and procure a regular evacuation of the bowels once a day; carefully avoiding all harsh remedies of every description. This is easily done by properly combining gentle tonics and anodynes with just sufficient laxative medicine to procure the regular evacuation of the bowels; and occasionally the addition of a mercurial alterative will be beneficial.

I make these suggestions for two purposes: first, to contribute my mite to the doings of the Society; and secondly, to call up more serious reflections on these common diseases.—*Transactions of N. Y. Med. Society.*

Rupture of the Umbilical Cord.—Rupture of the Vagina.—By Wm. Workman, M.D.—On the 20th of October, 1838, I was called to visit Mrs. R., aged about 38, an Irish woman, naturally of robust constitution, but with health somewhat impaired, then in labor with her fifth child. First saw her at 7, P. M. According to her account, she had been in labor about thirty hours; the first part of the time the pains were moderate, but for the last seven or eight hours they had been very urgent and almost incessant. On examination, I found the os uteri well dilated, the membranes protruding into the pelvic cavity and very tense; but the presenting part of the fœtus was high up, yet above the brim of the pelvis. After some fifteen minutes' delay, I ruptured the membranes; and such was the expulsive force of the uterus that it threw a jet of the liquor amnii more than three feet from the bedside. After a few minutes respite the uterine action was renewed as vigorously as before, and the head very soon descended partly into the pelvis; the position being the first oblique, or left acetabular; and I was for a time encouraged by the hope that the labor would be speedily finished by the natural efforts, notwithstanding the obstacles to be overcome.

The opposing difficulties were: 1st, a contraction of the brim of the pelvis, latterally, rendering its transverse and oblique diameters, as I judged, considerably below the medium size; perhaps a rare conformation. The lower strait of the pelvis was of ample dimensions. 2d. A more serious obstruction was occasioned by a globular tumor of from one and a

half to two inches in diameter, situated upon the sacrum, just below the promontory. It was firmly attached upon a broad base, immovable, but quite elastic, being a little to the right of the centre, and to the touch communicating the idea of a fibro-cartilaginous structure. At this stage of the case the coronal region was pressing firmly on the tumor, the vertex had descended partly behind the symphsis, and the occiput rested on the left ramus of the pubes. Here it remained two hours, without making the least progress. The elasticity of the tumor would allow the head to advance a little during the height of the pains, but as soon as the action of the uterus slacked, it would recede to the same point again. Meanwhile the patient was vociferous, extremely restless, and most earnestly entreated that I would "use the instruments and relieve her from her torments."

I had delivered her with the forceps in two preceding labors under similar circumstances. with no untoward occurrence, except incontinence of urine for three or four days after the first accouchement. She had borne two children in Boston previously; the first, according to her account, was born by the natural efforts after a somewhat tedious and protracted labor. Of the second she was delivered with the forceps by the late Dr. Doane, of that city, after three days intense suffering, having been reduced to a state of great exhaustion.

Considering all the circumstances of the case, therefore, I was satisfied that longer delay would be useless. The patient lay upon the left side upon a straw bed on the floor — a position not the most convenient for the operator, but as good as circumstances would permit. The left ear could only be reached with much difficulty during the slight remission of the pains, but the forceps were carefully introduced, and in a few minutes so adjusted as to lock readily, though the head was so high up as to carry the junction of the blades within the vulva. As soon as the extraction by the forceps was commenced, the patient exclaimed that her pain was very much relieved, that "she didn't suffer half as much as she did before." It required all the force I could possibly exert during a number of pains, together with the organic and voluntary efforts of the patient, which were neither weak nor slow, before the head could be advanced a single inch; but as soon as it had passed the superior strait, the labor was finished with great facility. While, however, the head was passing the vulva, the perineum still covering the face, I discovered the end of the ruptured umbilical cord hanging loose on the left side in front of the ear, then prolapsed about an inch and a

half. I immediately brought out the head, urged the patient to make what voluntary effort she could, introduced my finger under the axilla, and speedily brought out the body of the child; but it was dead—perfectly blanched—exhibiting every appearance of death by hemorrhage shortly before birth.—(The child was a female, of full size; weight, by estimation, about nine pounds.) The head was scarcely marked by the forceps, which were very accurately applied, the blades passing from the vertex over each ear, one just reaching, and the other falling a few lines short of, the angle of the mouth. The skin was unbroken; the only injury was a slight cut at the right angle of the mouth on the inside of the upper lip, where it was passed by the point of the blade of the forceps. The cord was ruptured transversely (two thirds its diameter), an inch and a half from the umbilicus; in the other third it ran off obliquely, three fourths of an inch further.

I discovered no prolapsus of the cord until the ruptured extremity appeared by the side of the head, as it was emerging from the external organs. There were no *folds* of it prolapsed, and none about the neck of the fœtus, and, on careful examination, not the least mark of injury or violence of any kind could be detected on any part, except the ruptured extremity; and this must have been out of the reach of either forceps or fingers when the accident occurred.

I have been puzzled to account for this rupture. In domestic animals, where the cord is forcibly ruptured, it generally takes place some distance from the umbilicus; in the larger animals, from eight to twelve inches or more. If in this case it was occasioned by violence of any kind, why should it not have taken place at the point where that violence was applied? If it had been entangled under the forceps in any way, surely they must have left marks sufficient to show clearly where the force was applied.

I have described this case thus circumstantially and minutely, because it presents two points of considerable interest. And, in order that the result may be duly appreciated, it seemed necessary that the history and treatment should be accurately and fully detailed. Rupture of the umbilical cord is an accident of somewhat rare occurrence; it may happen without any obvious cause; it may be the result of improper or unnecessary officious interference of the accoucheur.—Judge ye. The pelvic tumor was one of extraordinary character. It was not a bony projection at the top of the sacrum, such as is often found in distortions of the pelvis; it was less solid than bone, and was of a character essentially different

from the recto-vaginal tumors described by authors. This was the main cause of difficulty in the labor at this time, and on the two preceding occasions when I attended her, and probably was the cause of the difficulty in her second accouchement in Boston.

I was called upon to visit this woman again in labor, January 13, 1840, in consultation with three medical gentlemen then in attendance. Meanwhile she had removed to a place some eleven or twelve miles distant from this town. I arrived at her residence at 6 o'clock, A. M., and found the attending physician present; the others had retired. He informed me that she had been in labor about three days, that there was nothing peculiar the first twenty-four hours, the pains were neither severe nor very frequent, and little or no progress was made. During the second day the pains increased, the head of the fœtus presented, advanced into the superior strait, was then arrested, and remained stationary for more than thirty hours. He had noticed the pelvic tumor, which he supposed caused the delay. During all this period the action of the uterus was continued with great force, and with scarcely any remission. About 4 o'clock, P. M., of the day before, while suffering a tremendous pain, she felt something give way in the region of the uterus; the pain immediately ceased, and was only slightly renewed two or three times afterwards. She complained of great prostration, of sinking and faintness at the epigastrium, and of distress diffused over the bowels. There was at this time extreme frequency of pulse, tenderness of the whole abdomen, the countenance had an anxious expression, the lips were swollen and somewhat livid. She begged most earnestly to be delivered without delay.

The attending physician, as he informed me, had suspected a rupture of the uterus, yet he was not fully satisfied of the correctness of that opinion, his colleagues of yesterday not concurring in it. I immediately sat down to the patient, and on examination readily discovered the os uteri, contracted to its usual size after the completion of labor. The vagina was extensively lacerated at its junction with the cervix uteri, and entirely detached from it on the left side and in front.—The fœtus and placenta were in the peritoneal cavity among the intestines. I passed my hand up very carefully along the head, body and extremities of the fœtus, till I reached and felt very distinctly the anterior edge of the liver, in contact with which I found the feet, seized them and brought them down, and at length succeeded in accomplishing the full delivery of the patient, occupying about half an hour in the operation. The child was a male, and, like the previous children, of rather

large size. The hemorrhage had been slight, a few small coagula only were found and removed. The patient bore the operation well, and expressed much gratification when it was finished.

The attending physician afterwards informed me that she lived till 4 o'clock, P. M., of same day, twenty-four hours from the time of the rupture. No *post-mortem* examination was made.

Postscript.—"There are two causes," says Dr. Blundell, "to which laceration of the uterus may be ascribed; the one is continued resistance to the passing of the fœtus, and the other is obstetric violence, whether of instruments or the hand." The former was obviously the cause in this case.—Whether the life of the mother or child in this case might have been saved by delivery immediately after the occurrence of the rupture, is a question not to be asked. That she might have been safely delivered with the aid of the forceps before this occurrence, is very probable.

Rupture of the uterus or vagina is an obstetrical calamity, of all others, most to be deplored. It generally proves fatal to both mother and child. Yet many instances are recorded by obstetrical writers, of the preservation of one or both.—To this end artificial delivery should be promptly effected. "The practice is, at present," says Dr. Collins, of Dublin, "invariably to effect the delivery as soon as possible after the laceration has taken place." He reports three cases of recovery of the mother, and two children saved. Burns, Dewees, Blundell and Moreau, all decidedly recommend this practice. When the laceration is not extensive, and the fœtus is still retained in utero, the delivery may be effected, by skilful management, either with the forceps or by the perforator and crotchet. In extensive lacerations of the uterus and vagina, or of the vagina alone, the fœtus will generally escape into the peritoneal cavity, and the delivery may generally be accomplished by turning. Dr. Blundell charges his pupils thus, "in these dreadful emergencies." "If you are unequal to the duty, give up the management of the case altogether, and send for further assistance." If the circumstances are such that delivery, *per vias naturales*, is impracticable, an immediate resort to gastrotomy is very decidedly urged by Dewees and Moreau, rather than abandon a patient to her fate, undelivered. "Some few examples attest the success of this method," says Moreau. "It has saved some women; even some children have, through its agency, been born alive."

Boston Med. and Surg. Journal.

Affection of Peyer's Glands in Adynamic Fever.—At a meeting of the New York Medical and Surgical Society, January 23d, Dr. Sweet stated that he had lately had three cases of typhus, throwing some light upon the pathology of the disease, especially as to the condition of Peyer's glands. The patients arrived in a vessel in which the disease had been very violent, the captain and all the sailors having suffered from it. In the first patient, no ulcerations were discovered, but some patches of Peyer's glands, near the ileo-cœcal valve, were enlarged and discolored, being of reddish brown hue. In the second, a girl of 20, who had the ordinary symptoms, the glands of Peyer were very much inflamed and ulcerated. The third case was that of a boy, attacked in a week after landing, who had suffered much privation. At the time of his entrance into the hospital, he was exceedingly prostrated. Stimuli were given at once, and he improved considerably. He lived for a fortnight afterwards, and for the last week seemed constantly dying. A day or two before his death, livid discolorations of a linear form appeared about the upper part of the abdomen, as if from the bursting of small veins. On post-mortem examination, no disease of Peyer's glands, whatever, was discovered, except that some of them were hypertrophied, the results, no doubt, of former disease. In the cœcum, there were about a dozen sloughing ulcers, irregular in shape, the largest of them about the size of a five-cent piece. Taking the three cases together, it appears that the disease, although of common origin, may or may not be attended with ulceration of Peyer's glands. This is in accordance with the opinion of the English, and opposed to that of the French pathologists.

New York Annalist.

Prof. Chapman on Medical Reform.—The venerable and illustrious professor of the Practice of Medicine in the University of Pennsylvania, in the address delivered by him to the graduates of that school, touched in a very felicitous manner on the existing condition of the profession.

"By an extraordinary multiplication of medical schools," he remarked, "a vulgar rivalry has arisen in spirit and conduct similar to that displayed in the competitions of steamboats, and railroads, with the same means resorted to for reaching success. Education is cheapened, the period of study abridged, or lightened—no irksome examinations are to be endured, and degrees acquired easily and assuredly. The an-

nual number of graduates, in medicine, is at present probably larger in the United States, than in the whole of the residue of the civilized world. Does not this startling fact sufficiently proclaim, that the most precious of professional honors, designed for the meritorious alone, is dispensed with criminal liberality? Confessedly the diploma has lost its value. Every one knows of its prostitution, and has ceased to regard it as in itself deserving of attention. What other conclusion could indeed be formed, when it cannot be denied that nearly every audacious empiric of the land, is sheltered under its protection, and enjoys its immunities and privileges?

"Effects alarmingly menacing to the elevation, and real usefulness, of our science, may be discerned, as proceeding from these abuses and corruptions. Degraded in its position and authority, by a forfeiture of the public confidence, it has become mean, abject, obsequious—courting favor by artifice, or means equally ignoble and detestable. Charlatanism has spread its infection through it, and with its hideous features it is impressed. Do I calumniate, exaggerate, or even paint too warmly? The indignant tones of every medical man, honest and intelligent, are only repeated. Nay, the glad tidings are abroad that, the profession no longer enduring its grievances, is determined to be heard, and with a potential voice. Three hundred delegates from its embodied masses, are at this moment speeding their way to this city, to meet in convention, to devise measures to eradicate these very evils, and redress other wrongs. Cordial will be our welcome to these missionaries of good, and hearty our co-operation with them, in every effort tending to the purification of medicine, or to its higher and more perfect glory."—*Medical News.*

On Gunpowder. By Prof. Faraday.—Prof. Faraday briefly noticed the known composition of gunpowder as consisting of —75 parts of nitre, 15 parts of charcoal, 10 parts of sulphur; which, converted into equivalents, give—1 of potassium, 1 of nitrogen, 6 of oxygen, 3-4 of carbon, 0-85 of sulphur, in a state of mechanical mixture. He then proceeded to advert, 1stly, to the *manner of the action of gunpowder.* Gunpowder was described as a solid body, in which a source of enormous power was locked up, capable of being brought into immediate operation whenever wanted: the action thus elicited being itself regulated by human skill with wonderful precision. The respective functions of the sulphur, nitre, and charcoal, in pro-

ducing the effects of gunpowder, were experimentally shown. The enormous quantity of gas generated by the combustion of gunpowder, irrespective of heat, was exhibited. It was remarked that, on the ignition of gunpowder, though the sulphur begins the combustion, it is not itself burned by the oxygen of the nitre, but unites chiefly with the potassium of that salt to form sulphuret of potassium —a substance which assists in giving to the flame of gunpowder an intense heat. 2ndly. The *amount of heat required for the inflammation of gunpowder* was next adverted to. If gunpowder and steel filings be dropped together through four or five inches of flame, the latter will burn, though the former will not. A flame from the gas was made to play for several seconds on a heap of gunpowder, without lighting it; but, 3rdly, *when actually lighted, gunpowder evolves very great heat.* It is to the immense heat produced on the solid products of the combustion of gunpowder, that the certainty of its complete combustion is greatly owing. In this respect gunpowder differs characteristically from gun-cotton. The latter fires at a heat which would not affect the former; but produces, by its combustion, a degree and condition of heat much less communicable to other bodies. 4thly. The *effect of the heat generated, independent of the chemical change from the solid to the gaseous or vaporous state,* namely, that due to mere expansion or increased elasticity producing the effects of gunpowder, was adverted to. This was illustrated by the violence with which a mixture of one volume of oxygen with two of hydrogen gas bursts the vessel which contains it, solely in consequence of the heat elicited during their combination. This is manifest from the fact that the space occupied by the uncombined gases, is greater by one-half than that taken by the resulting steam. 5thly. Prof. Faraday laid great stress on the *effect of the granulation of gunpowder.* To this condition of gunpowder, presenting, as it does, a number of separated surfaces of size just sufficient to become surrounded with flame at the same instant of ignition, much of the disruptive or projectile effect of gunpowder was ascribed. It was shown that, without that porosity which its division into grains imparts to a mass of gunpowder, the explosion of the whole could not be instant nor simultaneous. This was proved by bringing a piece of mill-cake successively into the condition of grain powder and of meal powder. The slow combustion of the solid meal powder fuse was compared with the quicker inflammation of the hollow rocket, and the instant inflammation of the charge of a gun. All these effects are related to the condition of the interior of the gunpow-

der in respect to its permeability by the flame of the first particles ignited. Then, as to its exterior condition, it was shown that the tardy burning of the miner's fuse is due to the granular state of the powder in its case being counteracted by the pressure of the strands of rope wrapped very tightly round it; while, on the other hand, in the cracker of the firework-maker, a similar train is instantly fired throughout, because it has a loose jacket all over it, and, in the burning of the common cracker, an alternation of these effects is produced. In conclusion, Prof. Faraday dwelt on the great importance of *time* in producing the effects of gunpowder. Contrasting the action of gunpowder with that of fulminating mercury and silver, or of those still more fearfully explosive compounds, the chlorides and iodides of nitrogen, Prof. Faraday showed that, if the explosion of gunpowder were really instantaneous, it would be useless for all its present applications. As it is, however, whenever gunpowder is fired in the chamber of a gun, it does not arrive at the full intensity of its action until the space it occupies has been enlarged by that through which the ball has been propelled during the first moment of ignition. Its expansive force is thus brought down and kept below that which the breech of the gun can bear, whilst an accumulating, safe, and efficient momentum is communicated to the ball, producing the precise effects of gunnery. This manageable action was contrasted with the effect of a morsel of iodide of nitrogen put on a plate, and exploded by being touched by the extremity of a long stick. The parts immediately in contact with the iodide were shattered,—*i. e.*, the end of the stick was shivered, and the spot in the plate covered by that substance, was drilled as if a bullet were fired through it, yet no tendency to lift the stick was felt by the hand,—whereas the comparatively gradual action of gunpowder lifts and projects those weaker substances, wadding and shot, which give way before it.—*Trans. Royal Inst.—Athen.—Jour. Franklin Inst.*

Diseases of the Army at Monterey.—By Dr. N. S. Jarvis, *Surgeon U. S. A.*—The first wounds were received in crossing the plain, and were inflicted by grape and cannon-shot. This was of course before we had approached within reach of their musketry. These wounds were all low; generally at or just above the ankle, according to distance and direction. Of the first three men brought to me, two had received wounds

from twelve pound shots just above the ankle, which had nearly severed the limbs, which were hanging only by a portion of integuments. The other had his heel torn off by a six pound shot. Shortly after, our troops having advanced within reach, and under the fire of the Mexican infantry, numerous cases of wounds by musket and escopette* balls were brought to me; these latter are one-third larger than our musket balls, and consequently inflict a more severe and formidable wound. So numerous at this time became the wounded in our pit, and so constant and heavy the fire directed towards the parties approaching with the wounded, as to compel us to remove our hospital several hundred yards farther in the rear. We had not long been in our new position, when some covered wagons bringing the wounded attracted the attention of the enemy, who immediately re-opened their fire, compelling us a second time to remove beyond the range of their shot.

Among the numerous projectiles, occasioning severe and fatal wounds, were grape, canister, fragments of iron and copper shells, and stones knocked by the balls from the buildings and walls. Their shells were thrown with great accuracy, frequently in the midst of a body of troops, but fortunately killing and wounding but few.

Before speaking of any particular wounds, I will here take occasion to make some remarks respecting the character they assumed, and the peculiar causes acting to prevent a favorable result, so far as regarded the healing of all, even the most slight. The first annoyance we experienced, and which no doubt exerted an injurious effect, was one little anticipated at the time. The moment a limb was amputated numerous flies would alight on the stump, and must have deposited their eggs, for when it became necessary to dress the stump, myriads of maggots were found buried in it, which could be expelled with great difficulty—rendering it necessary, in some instances, to reopen the flap, for their complete extermination. A much more formidable enemy made its appearance in an erysipelatous inflammation of the integuments covering the stump, which generally set in two or three days after the operation; and, notwithstanding all the means made use of to arrest it, most commonly ended in sloughing, and either proved fatal or rendered a second amputation necessary. That some influence existed previously, either external or internal, from causes connected with the state of the atmosphere, or habits

* An escopette is a short carbine, similar to a blunder-buss, and carries a ball one-third larger than our musket.—M.

of the men, arising from diet or water, was manifest. The slightest wound or scratch became in every case a tedious ulcer, in some instances proving a cause for serious alarm. Apparently the most trifling wounds required an unusual time for healing, and even those that had previously healed would break out again, and present greater difficulty in their cure than in the first instance.

At this period no atmospheric causes apparently existed to produce this unfavorable aspect of things. Nothing could exceed the loveliness of the weather, if I may so express myself, and if the middle of the day were warm, the morning and evening refreshed us by a most delightful temperature and cloudless sky. No rain had fallen, with the exception of one or two showers, for nearly a month, and consequently little moisture existed to produce its well-known morbific influence. Immediately after the capitulation of the city, on the 25th of September, all the wounded of the different divisions entered the town, and suitable buildings were provided for their accommodation. Upwards of two hundred officers and men from the 1st and 3d divisions, who had been most severely wounded, were coveyed thither on the same day in litters and wagons. The wounded of the 2d division already occupied the city.

Our camp afforded no comfort nor shelter for them beyond a few small tents and a solitary blanket laid on the ground; and many were destitute of even this apology for a bed, having lost them on our march. Many had no other clothing than that in wear, which was not only torn and soiled in climbing over the hedges, walls, &c., during the battle, but was stiff and saturated with blood from their wounds. A few days after their reception into the hospitals, tertian intermittent fever made its appearance, attacking many of the wounded, and, in the majority, retarding or completely arresting convalescence. On many of those severely wounded it exerted a decidedly pernicious influence, and no doubt contributed, in some cases, to a fatal termination. It not only attacked the wounded in the hospitals, but prevailed extensively in camp and among the population of the town and neighboring country. I cannot say to what extent this may be attributed to the putrid exhalations arising from the numerous bodies of men and horses slain in the different combats, and which had been slightly covered with earth, and emitted a most sickening and offensive effluvia. This, doubtless, contributed largely towards infecting or destroying the purity of the air, and establishing a poisonous miasm.—*New York Jour. of Medicine.*

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MEDICAL CONVENTION.

We lay before our readers such details as have reached us of the proceedings of the Medical Convention in Philadelphia. They will be read with deep interest. In our next number we shall be able to present a full account of the meeting.

The following resolutions were adopted:

"1. That it be recommended to all the colleges to extend the period employed in lecturing, from four to six months.

"2. That no student shall be a candidate for the degree of M.D. unless he shall have devoted three entire years to the study of medicine, including the time allotted to attendance upon the lectures.

"3. That the candidate shall have attended two full courses of lectures; that he shall be twenty-one years of age; and in all cases shall produce the certificate of his preceptor to prove when he commenced his studies.

"4. That the certificate of no preceptor shall be received who is avowedly and notoriously an irregular practitioner, whether he possess the degree of M.D. or not.

"5. That the several branches of medical education already named in the body of this report be taught in all the colleges, and that the number of professors be increased to seven.

"6. That it be required of candidates that they shall have steadily devoted three months to dissections.

"7. That it is incumbent upon preceptors to avail themselves of every opportunity to impart clinical instruction to their pupils; and

that medical colleges require candidates for graduation to show that they have attended on hospital practice for one season, whenever it can be accomplished, for the advancement of the same end.

"8. That it is incumbent upon all schools and colleges granting diplomas, fully to carry out the above requisitions.

"9. That it be considered the duty of preceptors to advise their students to attend only such institutions as shall rigidly adhere to the recommendations herein contained.

"10. That it be suggested to the faculties of the several medical institutions to adopt some efficient means for ascertaining that their students are actually in attendance upon their lectures."

The registration of the births, deaths and marriages, by the several States, was one of the subjects introduced a year ago which occupied the attention of the Convention. The committee appointed at the previous meeting made a report concerning it, and submitted the following resolutions, which were adopted:

"1. That it is expedient for this Convention to recommend to and urge upon the various State Governments the adoption of measures for procuring a registration of the births, marriages and deaths occurring in their several populations.

"2. That a standing committee be appointed by the Convention to take a general charge of the subject, and report annually to the Convention.

"3. That the State medical societies be requested to assume the duty of carrying out the objects embraced in the first resolution; and that in those States where no organized societies exist, the delegates therefrom in the present Convention be charged with the duty for their respective States, and report to the standing committee.

"4. That in procuring the registration, the forms and nomenclature adopted should be as nearly as possible similar to those prepared for and reported to the Convention.

"5. That the paper hereto annexed be adopted as the voice of the Convention, be printed, and signed by its officers, and transmitted under their direction to all the State Governments of the Union."

The Convention before adjourning resolved itself into an association, to be called the 'American Medical Association,' and elected the officers of the same. The following gentlemen were chosen: Professor Chapman, President; Prof. Knight, of New Haven, Dr. A. Stevens, of New York, Dr. Buchanan, of Nashville, and Dr. Moultrie, of South Carolina, Vicepresidents; Dr. Stillé, of Philadelphia, and Dr. Dunbar, of Baltimore, Secretaries; and Dr. Hays, of Philadelphia,

Treasurer. The president delivered a brief address, of which we find the following report in a Philadelphia paper:

"The committee, accompanied by Dr. Chapman, the president, came into the association, when the members immediately rose and applauded him as he proceeded to the rostrum. Having ascended it, the doctor briefly addressed the association, saying he was greatly impressed with the honor conferred upon him, and unable to express in adequate terms the feelings which then animated his breast. It had been his good fortune, in the course of his long life, sometimes to have been complimented in the same manner, though not in the same degree. He confessed his incompetency to serve them in conformity with his wishes. He loved his profession, and should be very ungrateful did he not. Whatever he possessed in this life of any value had been bestowed by her great favors. Whenever he deserted her or any of her disciples, might Almighty God desert him! It would always be his aim to promote as far as he could the principles of the science, and do everything in his power to elevate still higher the medical profession.

"In a few minutes afterwards the Convention adjourned, to meet again in May next, at Baltimore."

DEATH OF PROF. WORCESTER.

We regret to learn the death of Dr. Noah Worcester, of Cincinnati, which took place in that city on the 4th of April. Dr. Worcester enjoyed an enviable reputation as an accomplished and skilful physician. He was formerly a professor in the Medical College of Ohio, and at the time of his death held a chair in the Cleveland Medical School, in the same State. He was a native of New Hampshire, and removed to Cincinnati in the fall of 1838. We copy the following paragraphs from a just and very beautiful notice of him in the Cincinnati Gazette:

"Dr. Worcester was no ordinary man. During the nine years of his residence here, he won for himself a reputation of the highest character as a devoted and skilful physician, and a man of enviable attainments in the science of medicine. At the time of his death, his practice was one of the largest in the city; and though cut off thus early, he had gained an eminence not oftentimes attained even at the close of a long career of laborious professional service. He was an indefatigable student as well as a laborious practitioner, and was one of the few who, in the midst of a life of harassing anxieties and un-

ceasing labor, still retain and cultivate with delight an early love for classical studies.

"But it is not merely as an eminent physician and a man of cultivated tastes that his memory will be cherished. There are those to whom he ministered in affliction—with whom he was brought into the nearest and most intimate relations by the duties of his profession. It is upon these that his death falls most heavily; as a bereavement of doubly afflicting power; for it was among these—at the couch of the sufferer, at the family fireside, and in the unrestrained intercourse of private life—that the inestimable worth of the man and sterling virtues of his character were fully developed."

Dr. Worcester published a work on cutaneous diseases, and was also an occasional contributor to different medical journals.

DEATH OF PROFESSOR REVERE.

The eastern prints announce the death of Dr. John Revere, Professor of the Theory and Practice of Medicine in the medical department of the New York University. Dr. Revere began the study of medicine in Boston, of which he was a native, and after spending some years abroad, graduated in Edinburgh. He practised his profession for a time at Boston, and afterwards removed to Baltimore. During his residence in the latter city, he translated Magendie's Physiology, and published numerous papers on medical subjects. From Baltimore he went to Philadelphia, where he was appointed to the chair of Theory and Practice of Medicine in Jefferson Medical College. Subsequently he was chosen to fill the corresponding chair in the New York University. He died of pneumonia in New York city, on the 29th of April, aged 60 years.

Dr. Revere was a man of studious habits, of courteous and agreeable manners, and of an amiable disposition. His lectures were prepared carefully and with labor, and he had the reputation of being a successful teacher. His death is a loss to the profession, and especially to the school with which he was connected.

DEATH OF DR. GEORGE M'CLELLAN.

"This community," says the editor of the Phila. American, "was yesterday plunged in the most profound grief by intelligence of the

death of one of its most distinguished and estimable citizens, Dr. G. McClellan. This deplorable event took place very suddenly on Saturday night. On the morning of that day he called at our office, apparently in the enjoyment of his usual health, and manifested all the vivacity and activity which characterised him; but in the afternoon we learn that he was taken suddenly ill with a bilious colic, which terminated his life in the course of the night. The news fell with startling suddenness upon the community in which he had been so long and so universally known and cherished. Hundreds of families were wrapped in the deepest affliction, and all felt and lamented the blow as one which deprived the city of one of its greatest benefactors and the country of one of its brightest ornaments. Our community did not comprise an individual more respected or beloved, one whose genius was more admired, or whose estimable personal qualities were more beloved; and the loss which has been sustained will be lamented by almost every heart and around every hearthstone in the city."

Dr. McClellan was a native of New England, a graduate of the University of Pennsylvania, and one of the founders of the Jefferson Medical College. As an operative surgeon he enjoyed a high reputation, and he was engaged in preparing a textbook on surgery, the first volume of which was to have been published the day on which his death was announced. He died in the fifty-first year of his age, in the midst of his usefulness.

PRISON DISCIPLINE.

We received a few days since a pamphlet relative to prison discipline, written by Mr. George Sumner, of Boston. Mr. Sumner has been several years in France engaged in the investigation of the subject, and has produced an able and unanswerable argument in favor of separate confinement. He has had access to ministerial documents abroad, and to every other source of information relative to the treatment of convicts, and what he urges must therefore have great weight with the authorities of his native city, to whom his letter is addressed.

The city council of Boston, in 1836, adopted a resolution declaring that it was incumbent upon the city government to provide a jail so constructed that each prisoner might be separately accommodated.

This principle, it seems, the council have abandoned, and the object of Mr. Sumner is to bring them back to what he conceives to be their duty. His array of facts is imposing, and, as we have said, his argument is one which, it appears to us, ought to carry conviction to the minds of the wise and good people of Boston. In one respect this is a medical question, and it is for this reason that the topic is introduced here: it has been urged against the system of separate confinement, that it is injurious to health, and predisposes especially to insanity. Mr. Sumner meets this objection by quoting the testimony of medical men and others in France who have been connected with the prisons in which this system has prevailed. We quote a part of it as follows: "From Bordeaux, at which place the separate prison of 168 cells has been occupied for four years, the prefect writes, 1st April, 1846: 'It is now fully established that the health of the prisoners is better under the separate system than under any other, that they receive with more fruit the consolations of religion, and that, not being excited by the bad example and counsels of their fellows, many reform, while none grow worse.' The physician writes that he was formerly disposed to consider this system as unfavorable to health, but his opinion has now changed. 'Only one original case of insanity,' he says, 'has occurred in the prison, and this was of a convict on receipt of the news of the rejection of his appeal for a new trial.' The visiting committee, composed of some of the most honorable and enlightened citizens of Bordeaux, write: 'For our own part, most of us having originally formed opinions unfavorable to the system of separation by day as well as by night, we deem it our duty to declare that *experience has proved we had fallen into error;* and that we consider the system of separate imprisonment, accompanied by labor, reading, religious services and daily walks—the system, in short, as it is practised at Bordeaux—as one of the reforms which reflect the greatest honor on our age.'"

Much more to the same point is adduced, which must effectually stop the mouths of antagonists on this point. So far from injuring, it is evident that the system has improved the health of prisoners in multitudes of instances. But we have not space nor time to pursue the subject, and must dismiss it with a single other extract:

"From Montpelier, the physician of the separate prison, who is also a professor of the distinguished medical faculty of that ancient

town, writes: 'There are fewer maladies under the new system than under the old. *Pulmonary complaints have above all diminished.* The average number formerly was 31 cases in 121. Under the influence of the new system there have been only 17 in 112. Rheumatic affections have diminished one-half. The epidemics of different seasons do not penetrate the cells, while under the old system every disease in town was repeated in prison. The cases which occur are not only less numerous than before, but are of shorter duration. Prisoners who were feeble, emaciated and languishing on arrival, have acquired in a short time all the external signs of perfect health. Can any one doubt any longer of the good effects of the system on those who are well, when it aids so powerfully in restoring the health of those who are ill? Out of 658 men and 166 women received in the prison, 3 men and 1 woman have been put under treatment for mental derangement, but each one of them had shown signs of insanity before coming to the prison, and experience shows that the system of isolation, with its attendant visits, instead of increasing, has a tendency to moderate and quiet the predisposition to mental derangement.'"

Mr. Sumner's letter affords clear evidence of a vigorous mind, and, what is better, of a philanthropic heart. Pursuing the path in which Howard walked, may he live to accomplish like noble results.

DR. HARRIS AND THE NEW ORLEANS JOURNAL OF MEDICINE,

Dr. Harris has written to us complaining that the editors of the New Orleans Medical and Surgical Journal, in the May number, have done him injustice in their strictures on his paper entitled, "*Pathology and Treatment of Fever.*" We have not received that number of the New Orleans Journal, and are not informed as to the extent or character of the strictures, except as adverted to in the reply of Dr. Harris. What he particularly complains of is, that the editors accuse him of "inexperience and want of candor." We can undertake to say, if such charges have been preferred against Dr. Harris, that they are unjust. Dr. H. has been engaged in the practice of medicine for more than a dozen years, and in that time has seen much of those diseases which abound in southern latitudes. In respect to candor, no one who has known him ever questioned that, however much he may be mistaken in his views, he is always honest in the entertainment and expression of them. For the rest, differences of opinion among physicians, both as to pathology and modes of prac-

tice, must prevail, and every writer who submits his thoughts to the profession may make up his mind to have them fully and freely canvassed. We cannot for a moment entertain a suspicion that the able and impartial editors of the New Orleans Medical Journal would willingly do Dr. Harris injustice, and therefore decline publishing his reply to their notice of his paper.

CINCINNATI, May 22, 1847.

To my Colleagues:

GENTLEMEN—I returned yesterday from the annual meeting of the *Medical Convention of Ohio*, at Columbus, and propose to give you a short account of its proceedings, which I hope may reach you in time for our next number.

The first meeting of the Convention was held in the month of January, 1835, the next in the same month, 1838; since which they have been held annually for several years in different large towns, but for the last two or three in Columbus, where by common consent they are likely to be continued. Physicians from thirty counties of the State were present, to the number of one hundred and twenty, which is a gain on any previous convention of thirty or forty. I regret that the physicians of Kentucky have not been as successful in this mode of cultivating the profession as those of Ohio. The Convention of 1841 was not followed by any other in the former, but since that time six have been held in the latter State. Of the great utility of such conventions to those who compose them, if to no others, there cannot be a doubt; and when the time may come that they are numerously attended by the physicians of every State in the Union, the profession of the United States will be found advancing in aspiration and intelligence much beyond anything we have as yet seen.

At the late Convention, papers were read by Dr. Dawson on puerperal erysipelas, by Dr. Bœrsler on the bronchitis and pneumonia of children, and on certain injuries of the brain, by Dr. Howard on several surgical operations, and by Dr. Carney on milksickness; which papers were discussed at considerable length. But the professional exercises of the Convention were not limited to these heads. The appropriate treatment of autumnal fever, the convulsions of children, the inhalation of lethean gas before surgical operations, and trephining in epilepsy from injuries of the cranium, were introduced as topics of debate, and were spoken to with earnestness by a number of members. Finally, several gentlemen verbally communicated facts on different subjects, among which were gutta serena and the Cæsarean operation.

A committee was appointed to report to the next Convention on the

lethean gas in surgical operations, and another on the propriety of blood-letting in the hæmoptysis attendant on phthisis

Of course a number of motions were made and some papers read on the subject of societies, education, institutions, and the like. Dr. R. Thompson's elaborate paper on a new method of organizing medical schools, both in their faculties and boards of trustees, and Dr. Bœrsler's paper on kindred topics, together with several resolutions, were referred to a committee to report at the next session of the Convention. A resolution of Dr. Schenck for changing the name of county poor-houses to county *infirmaries* was referred to a committee with instructions to memorialize the Legislature. A series of resolutions transmitted to the Convention by Dr. Kreider, in favor of a reenactment of the law to regulate the practice of physic, were referred to a committee with instructions to petition the General Assembly to that end. Dr. R. Thompson offered a resolution for a report on the establishment of orphan asylums, which was also referred. Dr. Landon offered a resolution, also referred to a committee, to report on the best means of managing lunatics in private practice, and on the establishment of a private lunatic asylum. A memorial from Dr. W. Judkins, requesting the Convention to petition the Legislature to pass a law requiring all venders of patent medicines to attach to them a statement of their composition, was referred to a committee. A resolution offered by Dr. Ball, on the subject of the State poll tax on physicians, was likewise referred. Dr. Butterfield, one of the delegates from the Convention to the late National Convention at Philadelphia, made a verbal report of its proceedings; after which, on motion of Dr. Tate, a resolution was adopted requesting the faculties of the medical schools of Ohio to inform the next State Convention how far they have adopted the recommendations of the National Convention.

Invitations as usual were received from the officers of the Ohio penitentiary, lunatic asylum, and schools for the blind and deaf mute, to visit those institutions; but the time (three days) allotted for the session of the Convention was so entirely absorbed by its business, that the invitations could not be complied with. From all that I could learn, the whole of them are in a flourishing condition—that is, are not only well conducted, but, unfortunately, abound in inmates.

The proceedings and papers of the Convention will be published in a few weeks, when I hope you will give such an account of the latter as may be proper. . . . . In conclusion, I might mention that on the second night of the convention, the physicians of Columbus gave to its members quite a sumptuous entertainment—a hospitality which has grown into a fixed habit with them. Thus the fifth pair of nerves were exercised not less than the seventh, and in the discussion the latter did not send forth a single angry or resentful expression. There was emulation without rivalry, and wit without wine.

DAN. DRAKE.

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